(25,614)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1916.

No. 784.

ROBERT F. WERK, AND ROBERT F. WERK AND MRS. JOHN LEWIS KENNEDY, COPARTNERS, DOING BUSINESS UNDER THE NAME OF ROBERT F. WERK & COMPANY, PETITIONERS,

vs.

F. THOMAS PARKER AND J. THOMAS ROBEY, COPARTNERS, DOING BUSINESS UNDER THE NAME OF F. T. PARKER COMPANY.

ON PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT.

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In the United States Circuit Court of Appeals for the Third Circuit, October Sess., 1915.

No. —.

ROBERT F. WERK, and ROBERT F. WERK and Mrs. JOHN LEWIS Kennedy, Co-partners Doing Business under the Name of Robert F. Werk & Co., Appellants,

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners Doing Business under the Name of F. T. Parker Co., Appellees.

Appeal from the District Court of the United States for the Eastern District of Pennsylvania.

Docket Entries.

In the District Court of the United States for the Eastern District of Pennsylvania.

1277.

ROBERT F. WERK, and ROBERT F. WERK and Mrs. JOHN LEWIS Kennedy, Co-partners Doing Business under the Name of Robert F. Werk & Co.,

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners Doing Business under the Name of F. T. Parker Co.

Munn & Munn, T. Hart Anderson, E. H. Fairbanks.
Weaver & Drake.

1914,	June	30.	Bill of Complaint filed.
"	July	1.	Subpœna issued returnable July 21, 1914.
"	"	3.	Order for the appearance of E. Hayward Fairbanks, Esq., for plaintiff.
"	"	7.	Printed copy of Bill of Complaint filed.
"	"	22.	Printed Answer filed.
"	August	11.	Subpœna returned "served" July 2, 1914, on J. Thomas Robey and on July 7, 1914, on F. Thomas Parker and filed.
"	October	13.	Printed copy of Bill of Complaint filed.
1915,	January	25.	Testimony of witnesses on final hearing in open court.
"	March	8.	Opinion Dickinson, J., granting decree dismissing bill with costs filed.

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"	May	1.	Decree dismissing Bill with costs filed.
"	June	12.	Testimony filed.
			Assignment of Errors filed.
			Petition for Appeal filed.
			Order allowing appeal filed.
			Bond sur appeal and order of approval filed.
			Stipulation as to transcript of record sur appeal filed.
			Transcript of Evidence filed.
"	"	14.	Citation allowed and issued.
"	"	16.	Citation returned service accepted and filed.

In the District Court of the United States, Eastern District of Pennsylvania, June Sess., 1914.

No. 1277.

In Equity. No. 1277.

ROBERT F. WERK, and ROBERT F. WERK and Mrs. JOHN LEWIS Kennedy, Co-partners, Doing Business as Robert F. Werk & Co., Plaintiffs,

against

F. THOMAS PARKER and J. THOMAS ROBEY, Doing Business as F. T. Parker Co., Defendants.

Bill of Complaint.

Filed June 30, 1914.

Plaintiffs, Robert F. Werk and Robert F. Werk and Mrs. John Lewis Kennedy, co-partners, doing business under the name of Robert F. Werk & Co., being citizens of the United States and
3 of the State of Louisiana, and residing at New Orleans in said State, bring this, their Bill of Complaint, against F. Thomas Parker and J. Thomas Robey, co-partners, residents of and citizens of the State of Pennsylvania, and doing business under the name of F. T. Parker Co., in the City of Philadelphia, in the County of Philadelphia, in said State, and thereupon your orators complain and say:

I. Your orator, Robert F. Werk, is and ever since the 26th day of April, 1904, has been the sole and exclusive owner of Letters Patent of the United States No. 758,574 and No. 758,575, which said Letters Patent on the said 26th day of April, 1904, were granted and issued to the said Robert F. Werk, in accordance with the law in such cases made and provided, and in said Letters Patent there is patented certain new and useful improvements in Oil Press Mats; and your orators, Robert F. Werk and Mrs. John Lewis Kennedy, constituting the firm of Robert F. Werk & Co., have been ever since the date of

said Letters Patent, and now are possessed of the sole and exclusive license, to manufacture, use and sell through the United States and the Territories thereof, Oil Press Mats, embodying and containing the inventions patented in and by the aforesaid Letters Patent, and your orators show that the inventions of the aforesaid Letters Patent are capable of conjoint use.

II. Your orators, the aforesaid Robert F. Werk and Mrs. John Lewis Kennedy, constituting the firm of Robert F. Werk & Co., and possessed of the exclusive license to manufacture, use and sell Oil Press Mats, patented in and by said Letters Patent, are engaged in the business of manufacturing and selling Oil Press Mats, embodying and containing said patented inventions conjointly arranged, and have built up a large business in connection therewith, which business is a source of large profit to your orators.

III. The said defendants, well knowing the premises and
4 rights of your orators in and to said Letters Patent, with intent of injuring your orators and to deprive them of the benefits and advantages, which might and otherwise would accrue unto them from their rights in and to said Letters Patent No. 758,574 and No. 758,575 as aforesaid, have since the 26th day of April, 1904, and before the commencement of this suit, unlawfully and without license or allowance by, and against the will of your orators, and in infringement of their rights, as set forth in and by said Letters Patent No. 758,574 and No. 758,575, committed acts of infringement, to wit, the making, using and selling within the Eastern District of Pennsylvania and elsewhere in the United States, Oil Press Mats, constructed in accordance with the disclosures of said Letters Patent No. 758,574 and No. 758,575 and embodying the inventions and improvements set forth and described therein, and in which the inventions of the said Letters Patent No. 758,574 and No. 758,575 were conjointly embodied, and the said defendants now continue to do so and are preparing and threatening to do so in the future, and though advised and warned of your orator's rights in the premises and requested to abstain from and to cease their infringing acts and violations, have utterly disregarded such notices of warning and have refused to cease their infringing acts, all of which is contrary to equity and good conscience and in violation of your orators' rights as stated; and that said defendants have failed and refused to pay over unto your orators, all or any of the profits that have accrued to them in consequence of their unauthorized and infringing acts; and that but for said defendants, and said unlawful and unauthorized acts, your orators would still be in the undisturbed possession, use and enjoyment of the exclusive privileges secured to them, as owners of said patent and owners of an exclusive license under the said Letters Patent No. 758,574 and No. 758,575, and in receipt of the profits accruing therefrom, and which acts of the defendants as herein
5 recited, work great and irreparable injury to your orators and to their rights in the premises.

IV. Your orators further show that in addition to the actual notice of your orators' rights given to the defendants, as hereinbefore recited, your orators have caused to be marked, the Oil Press Mats, em-

bodying and containing the said patented inventions, manufactured and sold by your orators, Robert F. Werk and Mrs. John Lewis Kennedy, constituting the firm of Robert F. Werk & Co., with the word "Patented", together with the respective dates of said Letters Patent.

V. To the end therefore that said defendants may, if they can, show why your orators should not have relief, may it please this court to bring the defendants, F. Thomas Parker and J. Thomas Robey, before this court, by process of subpoena, there to make full, true, direct and perfect answer to the several matters and things herein set forth and charged, (though not under oath, same being hereby expressly waived) and that they be decreed to account for and pay over to your orators, the profits thus unlawfully derived and which might, and otherwise would have accrued to your orators, but for the unlawful and unauthorized acts of said defendants, and that the said defendants be required to produce their records and accounts of all kinds for the guidance of the court in determining the amount justly due your orators, and further that said defendants may be restrained and enjoined from any further violation of your orators' rights in the premises, may it please your Honors to grant a writ of injunction, issuing from and under the seal of this Honorable Court, perpetually enjoining and restraining said defendants, their employes, attorneys, agents and representatives of every kind and grade, from the further manufacture, use or sale in any manner of Oil Press Mats, in violation of your orators' rights as aforesaid; and for the further protection of their rights, your orators pray that a provisional or temporary injunction or restraining order may be
6 issued, restraining the said defendants, their employes, attorneys, agents and representatives of every kind and grade, from any further infringement of said Letters Patents, pending this cause; and your orators further pray for such other and further relief as the equities of the case may require and to your Honors may seem meet.

And your orators will ever pray.

ROBERT F. WERK,
ROBERT F. WERK & CO.,
By ROBERT F. WERK.

MUNN & MUNN,
T. HART ANDERSON,
Of Counsel.

E. HAYWARD FAIRBANKS,
Attorneys for Plaintiffs.

Office and Post Office address: 1232 Chestnut Street, Philadelphia, Pa.

PARISH OF ORLEANS,
State of Louisiana, ss:

Robert F. Werk, being first duly sworn, deposes and says: That he is one of the plaintiffs in the foregoing complaint and that he is one of the parties in the firm of Robert F. Werk & Co.: that he has read

the foregoing complaint, subscribed by him and knows the contents thereof, and that the same is true of his own knowledge, except as to such matters as are stated on information and belief and as to those matters, he believes it to be true.

ROBERT F. WERK.

Subscribed and sworn to before me at New Orleans, in the Parish of Orleans, and State of Louisiana, this 19th day of June, 1914.

[SEAL.] EMILE POMES,
Notary Public.

7 ***Answer.***

Filed July 22, 1914.

The above-named defendants, now and at all times hereafter, saving and reserving unto themselves, and each of them, all and all manner of advantages or exceptions, which can or may be had or taken to the many errors, uncertainties, insufficiencies and other imperfections in the plaintiff's bill of complaint contained, for answer thereto, or to so much and such parts thereof as they are advised are material or necessary to make answer unto, answering, say:

1. These defendants admit, upon the information of the bill of complaint, that the plaintiffs, Robert F. Werk and Robert F. Werk and Mrs. John Lewis Kennedy, co-partners, doing business under the name of Robert F. Werk & Co., are citizens of the United States and of the State of Louisiana, and reside at New Orleans, in said State; they admit they, F. Thomas Parker and J. Thomas Robey, co-partners, doing business under the name of F. T. Parker Co., are residents and citizens of the State of Pennsylvania, in the City of Philadelphia, in the County of Philadelphia.

2. These defendants, and each of them, have no knowledge and are not informed save by the bill of complaint herein, as to the truth of the allegations contained in paragraphs marked I and II and IV in the bill of complaint, and therefore deny the same upon information and belief, leaving the plaintiffs to make such proof thereof as they may be advised.

3. Moreover, in addition, whereas in paragraph I of the bill of complaint, the plaintiffs have seen fit to aver that the inventions of the Letters Patent referred to therein are capable of conjoint use, your defendants, besides denying the same upon information and belief, suggest that if material to the present case, this is not set forth
8 with sufficient clearness to show its aptitude to the present cause.

4. The defendants, and each of them, deny the averments in paragraph III of the bill of complaint, more particularly they deny that they have committed acts of infringement, to wit, the making, using and selling within the Eastern District of Pennsylvania and elsewhere in the United States, Oil Press Mats constructed in accordance with the disclosures of said Letters Patent, No. 758,574 and No. 758,575, and embodying the inventions therein, and in which the

inventions of said Letters Patent were conjointly embodied; and deny that they now continue to do so and are preparing and threatening to do so in the future; and deny that their, the defendants, acts, or any of them, are unlawful or unauthorized, or have disturbed the legal rights of the plaintiffs or do work great and irreparable injury to the complainants and to their rights in the premises.

5. The defendants, beside denying that they are manufacturing or have manufactured oil press mats which are an infringement of the patents granted to the plaintiffs and referred to in their bill of complaint, also suggest and hereby expressly deny and raise an issue as to the patentability of the said purported patented ideas and the privileges appertaining thereto, denying their novelty and utility. The defendants aver that the devices and ideas therein contained were in common use for many years prior to the application for and grant of the said patents.

6. The defendants, and each of them, deny that plaintiffs are entitled to any relief whatsoever, or any part of the relief in the said bill of complaint demanded, and allege that plaintiffs have no standing in this court, or in any court of equity.

7. These defendants deny any and all manner of unlawful
9 acts whatsoever, whereof they are, in any wise, by the said bill of complaint charged, all of which matters and things these defendants are ready and willing to prove as this Honorable Court shall direct and pray to be hence dismissed with their reasonable costs and charges, in this behalf most wrongfully sustained.

F. T. PARKER,
J. T. ROBEY.

WEAVER & DRAKE.
Solicitors and of Counsel for Defendants.

July 21, 1914.

Transcript of the Evidence.

This case was called for trial on the 25th day of January, 1915, before Honorable Oliver B. Dickinson, and there were present on behalf of the complainants, E. Hayward Fairbanks, Esq., and T. Hart Anderson, Esq., and on behalf of the defendant Frederick S. Drake, Esq., of Weaver & Drake.

Mr. Anderson offered in evidence a stipulation reading as follows:

"At the request of plaintiff's counsel, defendants' counsel stipulated that the defendants made and sold oil press mats, like the sample attached hereto, marked Plaintiff's Exhibit 1, defendants' mat, since the 14th day of January, 1913, and prior to the filing of the Bill of Complaint."

The sample of mat attached to the said stipulation was offered in evidence by the complainants as representing the defendants' infringing oil press mats.

Complainants' counsel also offered in evidence the original Letters

Patent Nos. 758,574 and 758,575, and the said exhibits were marked "Plaintiff's Exhibits Nos. 1, 2 and 3, respectively."

10 *Testimony of Barry C. Ritchie.*

BARRY C. RITCHIE was called and sworn as a witness on behalf of the complainants and testified as follows:

I am an importer of hair and wool and have been in that business about nine years, engaged in buying and selling hair and wool, and as a result of my experience in that business I can determine from inspection of Plaintiff's Exhibit 2 what material it is made of.

At this point Mr. Drake, of counsel for the defendants, subjected Mr. Ritchie to a cross-examination to determine his qualifications, and brought out the fact that Mr. Ritchie was formerly with George B. Ritchie & Company; that he has been in the business for nine years dealing in hair and wool including human hair and animal hair; that Mr. Ritchie is in charge of buying and does the buying himself from samples submitted, and that he has probably bought a million pounds of such hair; that the human hair which he buys comes from China, Japan and Italy; that the witness has never been in China, but the hair which he purchases from China he buys from samples submitted to him in this country by mail.

At the end of Mr. Ritchie's cross-examination by Mr. Drake, Mr. Drake remarked "All right".

The direct-examination of the witness was continued by Mr. Anderson.

The defendants' mat, Complainants' Exhibit 2, is made of human hair. I have bought and sold camel's hair and compared with camel's hair the term "long animal hair" means straight hair free from wool.

The witness explained that camel's hair or camel's wool is composed of hair and an undergrowth which is wool, whereas human hair does not have the undergrowth—it is simply straight hair. He further explained that hair from the tails and manes of animals is in the same nature as hair from the heads of Chinamen and other human hair; that it is a coarse hair but that the hair from
11 the manes and tails of animals is usually stiffer and probably thicker than human hair; that human hair is known as human hair and does not come under the designation of animal hair.

Assuming that an oil press mat was made of hair from the head of a Chinaman or other human hair, it would have the same elasticity and strength as hair from the manes and tails of animals—the same flexibility.

Assuming that an oil press mat has drainage properties, that is to say that oil liquid may flow through it, such a mat made of human hair would be the same as a mat made of hair from the tails and manes of animals.

Cross-examination by Mr. Drake:

Human hair would not have greater flexibility than horse's hair. I am familar with horse hair.

The witness identifies a sample shown him by Mr. Drake as horse hair.

I should say that both horse hair and human hair were about the same flexibility.

The witness identifies a sample shown him by Mr. Anderson as camel's hair, which sample is offered in evidence as Plaintiff's Exhibit No. 4.

The witness identifies another sample handed him by Mr. Anderson as human hair, and the said sample is offered in evidence as Plaintiff's Exhibit No. 5.

Interrogated by the Court, the witness stated that when he used the expression "hair" and the expression "wool", he intended to distinguish one from the other in that hair is of a straight texture and wool is of a soft texture, and when used in manufacturing they have to be used in an entirely different way; and in explaining the difference between camel's hair and other kinds of hair, the witness explained that camel's hair strictly speaking is called commercially in many countries "camel's wool", because it is composed of
12 a good part of wool and having a hairy character and composed of hair as well as wool. The term "wool" is not used when referring to "hair", and taking a sample and explaining to the Court the witness stated that there was a wool part and a hair part, the wool being of a soft crinkly character.

Interrogated by the Court as to whether human hair is not also soft and crinkly, the witness stated that it was hard to explain, but with his experience he can tell at a glance hair from wool.

Interrogated by Mr. Drake, the witness stated that camel's wool becomes camel's hair when it is combed, and relying to an interrogatory of the Court he stated that the essential difference is that the hair retains its identity and is what might be called a continous thing, whereas wool has the characteristic when it is rubbed together, the different threads of it will combine.

Testimony of John E. Kaiser.

JOHN E. KAISER, called and sworn as a witness on behalf of complainants, testified that he lives at Gratney, Louisiana, and is a mill superintendent; that he has been a mill superintendent for five years, and that he has had sixteen years experience in oil mills. He states that he was at the Southern Cotton Oil Company seven years as an assistant superintendent and three years as superintendent; and for two years he has been superintendent of the New Orleans Cotton Oil Company. The work done in the oil mills is the production of cotton seed oil and oil cake and lint obtained from crushing cotton seed.

In the process of obtaining oil from cotton seed the first step is a cleaning process; after the seeds are cleaned they are run through a machine to take off the lint; after the lint is taken off the seeds are hulled and chopped up, the meats being separated from
13 the hulls. The meats are then run through a crusher and then cooked. In the cooking process as much water is put

into the meats as they can possibly stand. After the meats are cooked they are spread over an oil press mat, the ends of which are folded over to cover the upper surface of the layer of cooked meats.

The oil press mat with the enclosed cooked cotton seed meats are then put into a press and subjected to a pressure of 3800 to 4000 pounds. The witness usually tries to carry 4000 pounds on his presses.

In the press the oil press mat with its enclosed mass of cooked meats rests upon a steel plate with grooves in it, the mass of meats being encased in the oil press mat or mass resting on the central portion of the mat, and the ends of the mat folded over on top of the mass, after which the pressure of 4000 pounds squeezes the mat and the enclosed mass of cooked oil seed meats remaining under pressure for a period of time.

The pressure extracts the oil which passes through the mat as though through a strainer.

The witness has used oil press mats bought from the complainants, having used them this "season and part of last season."

Before he began to use oil press mats purchased from the complainants he had used oil press mats made of camel's hair having used such mats about nine years.

The witness identifies a sample of oil press mats such as he purchased from complainants, and the same was offered in evidence as Plaintiff's Exhibit No. 6; and he picked out a sample of oil press mats made of camel's hair which was offered in evidence as Plaintiff's Exhibit No. 7.

Plaintiff's Exhibit No. 7 is all camel's hair. The witness had used camel's hair press mats very extensively, having used them from seven to ten years.

An oil press mat made of camel's hair would not last over five days, that was the best result ever obtained by the witness
14 with a mat made of camel's hair. The witness explained that in order to get the oil out of the cotton seed, they put water in it, and that if they put too much water in when using camel's hair mats the water will burst the folded ends of the mat where it is creased; that when the mats burst they have to be cut and patched and that they never last over five days.

That with the use of hair mats such as the complainants' samples and the defendants' infringing mat, they could use them for twenty days.

That with a camel's hair mat there is considerable difficulty in getting the oil through the mat as the oil will not go through the mat because it clogs up and gets a skin on it, or a scum which clogs it up, and that in order to strip it from the oil cake they have to use a machine. The Exhibit No. 7 shows a fair sample of camel's hair mat after it has been used, and that for a while the oil will go through it, but in about twenty-four hours, or thirty-six hours, use it gets in the condition shown by Plaintiff's Exhibit No. 7—in fact a worse condition.

It is desirable to add water to the cooked meats to get the best

results out of the seed and to get more oil out, as the water helps to force out the oil.

In the use of oil press mats made of hair, the mat does not cake up and the oil goes through freely and there is no difficulty in stripping the oil press mat made of hair from the oil cake; but with camel's hair they have to use a machine to get it off. The witness has made tests to determine how much oil is left in the oil cake while using camel's hair mats, and the lowest percentage of oil ever found remaining in the cake when using camel's hair mats was 6.04, which indicated that there was 6.04 per cent. of oil remaining in the cake when camel's hair mats were used; that the average of oil remaining in the cake when using camel's hair was 7½ per cent.

15 With oil press mats like complainant's hair mats the best reports indicated that there was 4.64 per cent. of oil remaining in the cake, and that the average showed 5.92 per cent.

Mr. Drake brought out on cross-examination of the witness that concerning the tests he was testifying from reports received by him from chemists and workmen under his employ.

Mr. Kaiser testified that when he was with the Southern Company, the cost of camel's hair oil press mats averaged eighteen cents per ton of seed pressed, and that his own experience with hair mats obtained from the complainants showed that they cost ten cents per ton of seed.

On cross-examination the witness testified that his first experience with hair mats was last season, but that was not the first time he had ever seen a hair mat, for he had seen some of complainant's mats before, but last season was the first that he had used them.

BARRY C. RITCHIE recalled:

Mr. Ritchie was interrogated by the Court as to whether the words "animal hair" had a trade meaning and stated that it was usually "classed up" into goat hair and cattle hair; that in the trade animal hair does not include horse hair, nor wool, nor camel's hair.

Testimony of Robert F. Werk.

ROBERT F. WERK, being called and sworn on behalf of complainants, testified that he is one of the complainants and the patentee named in the patents in suit; that his company has been putting on the market hair mats and he produced a sample of such mats which they had been putting on the market for twelve or thirteen

16 years. The witness identifies the samples marked Complainants' Exhibit Hair Mat Samples as like the ones marketed by the camplainants; that in marketing complainants' patented hair mats they placed on every order shipped out a tag. The witness produced such a tag and it was introduced in evidence as Complainants' Exhibit No. 8.

The witness has charge of the manufacturing of the oil press mats manufactured by the complainants and he states that the

sample which he identified as of complainants' manufacture is composed of warp and weft threads made of soft pliable hair; that the warp and weft threads are both made of animal hair; and that the weft threads are finer and more numerous than the warp threads.

On cross-examination by Mr. Drake, the witness stated that in most qualities the warp threads are finer and more numerous than the weft threads.

This closed complainants' prima facie case.

At this time the following colloquy took place:

The Court: I should like to have somebody explain to me what these witnesses mean when they talk about a mat, a real mat, or whether it merely has the form of a mat?

Mr. Anderson: Will your Honor take my description? As I understand it, it is constructed of material the quality of the sample that is here admitted.

The Court: What I mean is, it does not necessarily imply that in its texture the material is matted?

Mr. Anderson: On the contrary, that is just what happened to the camel's hair.

The Court: Just the significance in my mind. You call it a bag or a mat, because it is a real mat?

Mr. Drake: Kaiser spoke of them as bags.

The Court: As I understand it, in the trade it is simply referred to as a mat because it is in the form of a mat.

17 DEFENDANT'S EVIDENCE.

Testimony of Abraham Cohen.

ABRAHAM COHEN, called and sworn as a witness on behalf of the defendants, testified that he is a trader and dealer in human hair having been in business on his own account for five years; that he has had an experience of some years before that in the human hair business—about three or four years. The witness has personally handled human hair in the course of his business and looking at Complainants' Exhibit No. 2, Defendants' Mat, he states that it is made of human hair.

There was no cross-examination.

Testimony of Edward W. France.

EDWARD W. FRANCE, called and sworn as a witness on behalf of the defendants, testified that he is a director of the Philadelphia Textile School and that his experience has covered all lines of textures and textiles and all kinds of fabrics, and in reply to an interrogatory by the Court the witness stated that "weft" is the equivalent of "woof" and is the same thing; that "weft" and "woof" are synonymous.

The witness testified that he had examined Letters Patent No. 758,575, and that there was nothing new and novel in so far as the weaving is concerned. Thereupon occurred the following colloquy between the Court and counsel:

The Court: Of course, Mr. Drake, you will appreciate that that objection goes further than that. They are not claiming any patents because of anything new and novel in the art of weaving or merely the use of hair of particular length applied to what by their patent is admitted to be common and well known in the art
18 of weaving, but used in an appliance in a certain way.

Mr. Drake: But their claim is, your Honor will notice, an oil press mat, consisting of warp threads and weft threads, each composed exclusively of long hair derived from animals' tails and manes, which hair is soft and pliable.

The Court: And that the warp threads will exceed the weft threads in number per square inch, and the weft threads are thicker than the warp threads. Now that does not involve any claim of an improvement in the art of weaving, but merely the application of the art of weaving and a combination of threads of a certain type and character in order to produce the result which is effected in the particular use to which those mats are applied.

Mr. Drake: I realize that, but my friend's question to the witness Werk was whether or not the warp threads do not exceed the number of the weft threads.

Mr. Anderson: Which means, your Honor, that we have applied our invention to a particular weave or use, that is all.

The Court: That is the idea, it is in the application.

The witness being interrogated by the Court, stated that a weaver could use a relatively given number of threads to the square inch in either the weft or the warp, as he pleases. Also, that he can use any character of thread—either soft or pliable, or stiff and less pliable, or coarse or fine, within the limits of his power to manipulate it; also long or short.

The examination being continued by Mr. Drake, the witness testified that he had examined Letters Patent No. 758,574, and that there was nothing new and novel in the art of weaving set forth in that patent so far as the weaving is concerned.

19 On cross-examination the witness stated that he desired to be understood that he was qualified to read and construe a patent and tell what it covers; that he has had considerable experience in cases of law bearing on that subject, and that he has testified as an expert in patents relating to the textile arts.

Testimony of Frederick Eick.

FREDERICK EICK, being called and sworn as a witness on behalf of defendants, testified that up to three weeks before giving his testimony he was superintendent of the Saxonia Weaving Mill; that he had been connected with the weaving art since 1869—about forty-five years.

After that the following colloquy took place:

Mr. Drake: I am going to offer this witness for the same purpose as Mr. France. If that is not controverted, I don't see that we can gain anything by it.

The Court: I understand that counsel on the other side objects to it on the ground that it is wholly immaterial, and the testimony of Mr. France is not in controversy as to the fact to which you testify, is that right?

Mr. Anderson: Yes, not at all.

The Court: It is objected to as purely irrelevant and does not advance the determination of this case. If it should turn out that anything of that kind is in controversy, we will call him.

(Witness excused.)

The Court: There is no evidence as yet on the record of the relative number of threads in warps and wefts here, nor as to the character of the thread with respect to being soft and pliable.

Mr. Anderson: I was going into it, but my adversary
20 objected to it on the ground that the defendants' article speaks for itself, and that is a matter for the Court to determine whether the characteristic features specified are present in that article, and not for a witness to testify to. It is a question of infringement; otherwise, I shall be very glad to put Mr. Werk on the stand again and bring that out.

The Court: Well, I am not entirely clear whether under the meaning here the burden is on you to show that is a character of the defendants' mat or whether the burden is upon the defendants to disclaim anything supporting this claim.

Mr. Anderson: With the defendants' alleged infringing device in evidence, it becomes a question of judicial interpretation of the claim; also, a question of fact by inspection of the article whether the article embodies the subject matter of the claim, and the article to a certain extent speaks for itself.

The Court: Yes, to a certain extent, but now in the mind of a layman, soft and pliable hair might be one thing and to the mind of one familiar with the trade soft and pliable hair might be a different thing. How can I determine that?

Mr. Anderson: I will be very glad to recall either Mr. Werk or Mr. Ritchie.

The Court: I think we ought to have information upon that. I suggest to counsel on both sides that we ought to have it. I am not sure whether it is incumbent upon you or incumbent upon the complainants. All we have here is this sample. That throws the burden on the Court of finding the number of threads to the square inch. It throws upon us the determination of the question as to whether some of them are soft and pliable.

Mr. Anderson: Perhaps counsel may agree on that.

The Court: It throws upon us the determination of the
21 relative number per square inch in warp and weft and my count on that might not be accurate. Mr. Fairbanks, is this up for final hearing or preliminary injunction?

Mr. Fairbanks: A final hearing, your Honor.

Mr. Drake: There are two possibilities, if your Honor please, to my mind; that is, for instance my friend would get up and show the sample he has, that it has a long animal hair, but outside of that——

The Court: Well, he is standing upon the proposition that it speaks for itself.

Mr. Drake: But with regard to the samples which have been produced, Mr. France says, for instance, that as far as having any bearing upon getting at the warp and the weft, or the woof, the weft seems to be about one-tenth—it is one-tenth larger than the warp thread. Now that would raise another point.

The Court: Now you are speaking of yours or the complainants'?

Mr. Drake: The defendants' exhibit, which they have shown.

Edward W. France Recalled.

The witness, EDWARD W. FRANCE, was recalled, and being interrogated by the Court stated that he had examined the defendants' mat and that the weft threads are soft and pliable hair and that there was very little difference between the pliability of one system of threads over the pliability of the other. Taking the sample as it stands, the weft threads are relatively soft and pliable; that the number of threads per square inch were 2 to 1 in favor of the warp threads.

The witness stated that in the sample the warp threads were composed of a mixture of stiff and hard and coarse hair and relatively pliable hair; that the weft threads were made up wholly of
22 relatively soft and pliable hair. The weft thread is about one-tenth larger in diameter than the warp threads.

Questioned by Mr. Drake, the witness stated that there was no difference between the hair in the weft and the warp threads; that the hair in the warp threads and the hair in the weft threads is the same as to pliability.

On cross-examination by Mr. Anderson the witness would not admit that the weft threads of the sample are composed exclusively of soft pliable hair, but when interrogated by the Court he said that he would not consider the hair in the weft threads as being soft, pliable hair.

He stated to the Court that soft hair would not be considered hair from a horse's tail, but in comparison with hair from the horse's mane it would be stiffer.

In answer to Mr. Anderson he stated that as compared to the hair from a horse's tail the weft threads of the sample are more pliable and composed exclusively of soft, pliable hair; that it was possible that weft threads made entirely of horse's hair could be described as soft and pliable, taking into consideration that some horses have finer hair and longer hair than others, and that if the weft threads were made of horse's hair it could still be described as made of soft, pliable hair. This was a possible description, but

No. 758,574. PATENTED APR. 26, 1904.

R. F. WERK.

OIL PRESS MAT.

APPLICATION FILED JUNE 26, 1902.

NO MODEL.

Fig. 1.

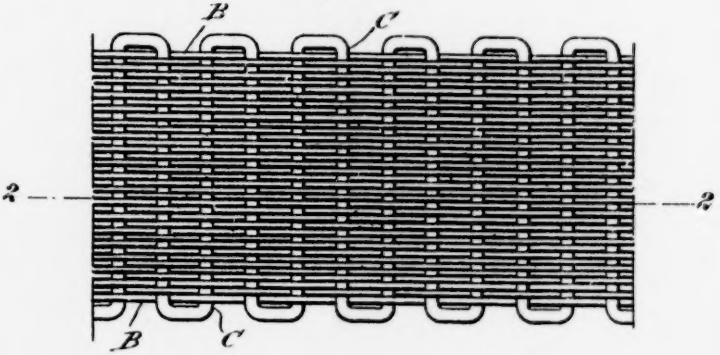

Fig. 2.

WITNESSES:

Paul Dorner

W. J. Bernhard

INVENTOR

Robert F. Werk

BY Munn & Co

ATTORNEYS.

not probable. The witness admitted that he was not a hair expert, but a textile expert—an expert in weaving.

The defendants here rested.

Barry C. Ritchie Recalled.

HARRY C. RITCHIE recalled, and examined the complainants' exhibit, defendants' mat, claimed to be an infringement, and testified that the weft threads in the said exhibit were composed exclusively of soft, pliable hair, and that the number of threads per
23 & 24 square inch in the warp threads exceed the number of weft threads. As compared to camel's hair, the term "long" when applied to hair indicates a straight hair, straight texture, and that the term "long" is used as applied to hair means to the trade straight texture hair without a woolly bottom; that is to say a hair composed of straight relatively long fibres and not a hair mixed with a woolly mat.

On cross-examination the witness testified that he could not say how long camel's hair could be spun.

Robert F. Werk Recalled.

Mr. Werk's attention was called to the complainants' exhibit defendants' infringing mat, and stated that there are twelve warp threads to the inch and four weft threads.

Interrogated by the Court he stated that the warp threads are arranged in relatively close proximity and that they cover the weft threads completely.

On cross-examination the witness admitted that this was also true of a camel's hair mat, namely, that the warp threads concealed the weft threads, but that it was more difficult to manufacture hair that way on account of the coarser fibre. The witness admitted that mats of camel's hair had been manufactured in the same way.

Plaintiff's counsel was permitted to withdraw the original patents and introduce in evidence Patent Office copies.

This closed the testimony and the Court took the case under advisement.

(Here follows diagram marked pages 25 and 26.)

27

No. 758,574.

Patented April 26, 1914.

United States Patent Office.

Robert Franz Werk, of New Orleans, Louisiana.

Oil-Press Mat.

Specification Forming Part of Letters Patent No. 758,574, Dated April 26, 1904.

Original Application Filed September 10, 1901, Serial No. 74,906. Divided and This Application Filed June 26, 1902. Serial No. 113,265. (No Model.)

To all whom it may concern:

Be it known that I, Robert Franz Werk, a citizen of the United States, an da resident of New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Oil-Press Mats, of which the following is a full, clear, and exact description.

My invention relates to improvements in oil-press mats or cloths; and it constitutes a division of a prior application for Letters Patent of the United States, filed by me on Sepember 10, 1901, Serial No. 74,906.

The improved mat of this invention is characterized by an increased pliability in the warp threads or strands forming an integral part of a hair press cloth or fabric. Articles of this character are preferably made of hair-warp and hair-weft interwoven together, because hair strands afford good drainage for the oil and impart a glossy surface to the fabric, that enables the cake to be introduced with facility and the article to be stripped with ease from the compressed material. The pliability of the fabric, cloth, or mat is attained by the admixture of soft hair with long coarse hair in the warp-threads. The weft-threads of the improved mat are protected by the warp-threads against the shearing strain exerted by the pressure of the seeds, so that the mat is not liable to split in a longitudinal direction, and at the same time the mat is capable of folding longitudinally at any line without breaking. The selvage of the mat presents a yielding cushion, which prevents the article from giving way under pressure and minimizes unraveling of the threads.

The invention consists of an oil-press mat comprising warp-threads and weft-threads, both composed of long animal-hair, said warp-threads consisting of hard, stiff, and coarse hair mixed with soft pliable hair and the weft-threads consisting of soft pliable hair, said warp-threads exceeding in number per square inch the weft-threads and disposed in close proximity to each other to conceal and protect the weft-threads the warp-threads forming the selvage con-

sisting of soft pliable hair and the said weft-threads of soft pliable hair being thicker than the said warp-threads.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of an oil-press cloth constructed in accordance with this invention, and Fig. 2 is a longitudinal section thereof on the line 2 2 of Fig. 1.

The fabric of the present invention is necessarily made of animal-hair; and it consists of warp-threads A B in the body portion and at the selvage, respectively, of the fabric and the weft-threads C, which are interwoven with said warp-threads in a way to be concealed and protected thereby. To secure the desired flexibility of the fabric in a transverse direction, I employ warp-threads A, which consist of hard, stiff, and coarse hair mixed with soft pliable hair. The two kinds of hair are preferably quite long, and they are mixed together in the proper proportions, after which the hairs are twisted or spun together, so as to secure a strand or thread of the proper length and thickness. The warp-threads C are composed of long animal-hair, which is soft and pliable, and this hair after having been selected and prepared in a suitable way is twisted and spun to secure a strand or thread having the proper length. I prefer to make the weft-threads C of increased thickness as compared with the warp-threads A B in the body and selvage of the fabric, the warp-threads B which are to be used in making the selvage of the fabric consisting of soft pliable hair which is spun in a manner similar to the threads of the weft C.

After preparing the threads or strands the fabric is woven by arranging the warp A B parallel wtih each other and in the same transverse plane, while the weft C is arranged transversely across the warp-threads in a manner to be interlaced therewith. The warp-threads through the body portion of the selvage greatly exceed the number of the weft-threads, and I prefer to employ from five to eight times as many of the warp-threads per square inch as the weft-threads, thus making the warp-threads afford the desired protection to the weft-threads. The use of the weft-threads made of soft hair and of
28 increased thickness as compared with the warp-threads makes the weft-threads afford a desirable cushion to the warp-threads, thus reducing the liability of the warp-threads to cut or sever the weft when the mat is exposed to the pressure of a press. The employment of soft hair in the warp-threads secures a greater degree of pliability in the fabric than can be attained by making the warp and weft of hard coarse hair, and at the same time the mat possesses good drainage qualities. After it shall have been in use a short time the surface of the mat becomes glossy, the latter being advantageous because it facilitates the introduction of the formed cake into the press and enables the mat to be stripped with ease and facility from the compressed material. By protecting the weft-threads, owing to their being inclosed by the warp-threads, the seeds cannot penetrate and injure the weft-threads, and at the same time the mat can be folded longitudinaly without breaking or giving way in any of its threads.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An oil-press mat or cloth made entirely of long animal hair and consisting of warp and weft threads, said weft-threads being composed exclusively of soft, pliable hair and the warp-threads greatly exceeding the weft-threads in number per square inch.

2. An oil-press mat consisting of warp-threads and weft-threads, both composed of long animal hair, said warp-threads consisting of hard, stiff and coarse hair mixed with soft pliable hair, and the weft-threads consisting of soft pliable hair; said warp-threads exceeding in number per square inch the weft-threads, and arranged in close proximity to each other so as to conceal and protect the weft-threads; the warp-threads forming the selvage consisting of soft pliable hair, and said weft-threads of soft pliable hair being thicker than the warp-threads.

3. An oil-press mat consisting of hair warp-threads and hair weft-threads, the warp-threads being composed of hard, stiff and coarse hair mixed with soft, pliable hair, and the weft-threads being composed of soft, pliable hair, the selvage of the mat being formed by warp-threads of soft, pliable hair.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT FRANZ WERK.

Witnesses:

PHILIP PLOPP.
JOHN HEINRICH.

(Here follows diagram marked pages 29 and 30.)

No. 758,575. PATENTED APR. 26, 1904.

R. F. WERK.

OIL PRESS MAT.

APPLICATION FILED JUNE 26, 1902.

NO MODEL.

Fig. 1

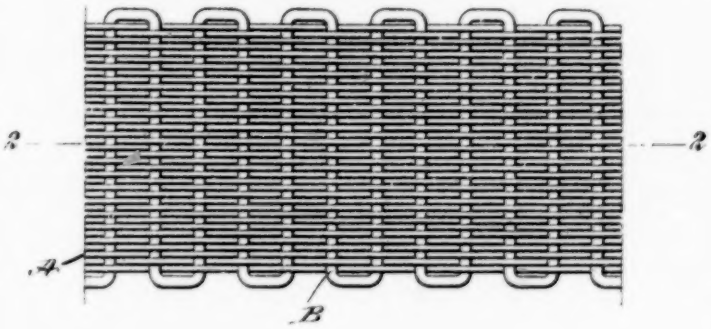

Fig. 2.

WITNESSES:

J. A. Brophy

W. J. Beuchaf

INVENTOR

Robert F. Werk

BY Munn & Co

ATTORNEYS.

31

No. 758,575.

Patented April 26, 1904.

United States Patent Office.

Robert F. Werk, of New Orleans, Louisiana.

Oil-Press Mat.

Specification Forming Part of Letters Patent No. 758,575, Dated April 26, 1904.

Original Application Filed September 10, 1901, Serial No. 74,906. Divided and This Application Filed June 26, 1902. Serial No. 113,266. (No model.)

To all whom it may concern:

Be it known that I, Robert F. Werk, a citizen of the United States, and a resident of New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Oil-Press Mats, of which the following is a full, clear, and exact description.

This invention relates to oil-press mats; and the subject-matter of the present application is a division of an earlier application for Letters Patent filed by me on September 10, 1901, Serial No. 74,906.

The highest grade of mat now in general use is made from camel's hair; but camel's hair is objectionable, because it packs and felts together when in use to such an extent as to hinder the free flow of the oil, and the yield per ton of seed is greatly reduced by reason of this felting of the camel's hair. The oil is compelled to seek an outlet on the sides where there is no cloth to hold the seed or meats from being washed out into the receiving tanks, which deteriorates the quality of the oil. Camel's hair also stretches from one-fifth to one-third of its original length, which is objectionable, as this requires the cloth to be cut too short to start with, and before it is worn out it has stretched too long for convenient handling. All these objections are overcome by the use of horsehair, and the horsehair being soft it retains all the good features of camel's hair.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of an oil-press mat embodying my invention, and Fig. 2 is a longitudinal section on the line 2 2 of Fig. 1.

The press cloth or fabric consists of longitudinal warp strands or threads A and the weft strands or threads B, the latter extending across the warp-strands and interwoven therewith in a manner to be concealed or protected thereby. In the present invention the warp-strands and the weft-strands A B, respectively, are essentially made of long animal hair which is soft and pliable. The hair is selected and prepared so that it may be spun or twisted together into

a strand or thread of the desired length and thickness, and in the production of the threads I prefer to make the weft B of greater thickness than the warp A.

The hair which I use in the manufacture of the mat may be horse-tail hair or cattle-tail hair or hair from horses' manes; but in each case the hair must be soft and pliable, and it is preferably quite long for convenience in spinning or twisting the hair into the threads or strands.

To produce the mat or fabric, the warp-threads A are arranged longitudinally side by side and in the same transverse plane, while the weft B extends transversely across the warp and is interwoven therewith. As shown by Fig. 1, the warp-threads greatly exceed in number the weft-threads, and I may use from five to eight times as many warp-threads as there are weft-threads in the fabric. The weft-threads may be produced by doubling or folding them into parallel lengths, which are suitably spaced apart; but the weft-threads may be of separate or continuous pieces, as desired and according to the dimensions of the mat. The close arrangement of the warp-threads prevents the passage of the seeds between them, thus reducing the pressure of the seeds upon the weft-threads, and the increased number of warp-threads as compared with the weft-threads is advantageous, because the pressure is more evenly distributed. The weft-threads of increased thickness secure a desirable cushion for the warp-threads when the mat is subjected to pressure in the operation of using the same.

The use of animal hair in the manufacture of the mat imparts the desirable drainage for the oil, and the product is entirely free from sediment, so as to obviate the necessity for subsequent filtration. The durability of the mat is secured by the use of long animal hair, and the improved mat is very pliable and affords the desirable cushion, so that the article will not break or tear lengthwise when subjected to pressure, and the mat can be folded upon itself without breaking at the line of fold or crease.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

An oil-press mat or cloth consisting of warp-threads and weft-threads, each composed exclusively of long hair derived from animals' tails and manes, which hair is soft and pliable; the warp-threads exceeding the weft-threads in number per square inch, and the weft-threads being thicker than the warp-threads.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT F. WERK.

Witnesses:

S. J. LAPUTE.
GEO. BOOTH.

33 *Opinion.*

Hearing on Bill, Answer and Proofs at Trial.

Filed March 8, 1915.

DICKINSON, *J.*:

The plaintiff's complaint is that the defendant has trespassed upon the proprietary rights granted to Robert F. Werk by Letters Patent No. 758,574 and 758,575 on April 26th, 1904, which have passed to them.

The answer is a denial of any act of infringement, and a general denial of the validity of the patent. The issue of infringement is still further narrowed to a question of equivalents. The patents relate to improvements in oil press mats. The principal use of these mats is in the extraction of cotton seed oil. After the seeds are brought to a condition in which the oil can be most readily expressed the prepared material is placed in the form of a cake upon the mat, the ends of which are then folded over and upon the sides of the cake. A heavy pressure is applied and the oil exuded or strained through the mat. So far as the evidence in this case discloses the mats known to the prior art were made of camel's hair. From the results of the use of camel's hair mats sprang a demand for something better. The camel's hair of which the mats were made is a mixture of hair and wool. These words, whether accurately or not, are used in the differential sense that wool is of finer fibre, has serrated edges and a crinkled form so that it will readily mat itself to make a felt. Relatively speaking, hair will not do this, or at least it is felted less readily. The camel's hair mats formerly in use having this matting or felting characteristic became, after a short use, almost impervious with a resultant loss of much of the oil product. The parts of the mat which were folded over the sides of the cake, after the mat
34 had been used for a short time, became weakened and would part. Water is used in the process of extracting the oil, and when used with camel's hair mats, if not applied with care, would bring about a further resultant loss. The prior state of the art of mat making involved the application of the weaver's art. We have then as the state of the prior art the use of a mat made of camel's hair and woven in the old and commonly known methods of the weaver.

The patentee in this case claims the merit of having discovered that he could by using a different material from that which was known in the art of mat making and by having the fibres or threads of this material woven in the usual way of warp and weft threads but having the weft threads composed of soft and pliable fibre and less in number than the warp threads, and in addition having the weft threads thicker than the warp threads, overcome the deficiencies of the mats then in use. The results, according to the evidence, justified his expectations. The mat which he produced was an improvement upon the old mat in several respects or features. One was that it was more efficient in that with its use all the oil could be extracted from the material and thus loss saved. Another was that what

might be called the longitudinal strength of the mat was increased with the resultant saving due to the mat lasting for a much longer time than the old mat. The third was that the improved mat could be produced at a much less cost than the old camel's hair mat. These results were accomplished by making the mat entirely of long animal hair, the fibres or threads of which as used in the warp of the woven cloth exceeds in number those used in the weft, and the weft threads being made exclusively of soft, pliable hair, or by having the mat woven of fibres or threads of long but soft and pliable hair obtained from the tails and manes of animals, and so selected that the
35 weft threads would be thicker than the warp threads and so woven that the warp threads would exceed in number the weft threads. As would be expected the grand result was, according to the evidence, that the new mat superseded the old.

The case for the plaintiff rests upon Claim 1 of the first patent and the one Claim of the second patent. Each of these Claims, it will be noticed, call for a mat made of "long animal hair." The mat as manufactured and sold by the defendant answers to all the features of the plaintiffs' patent except that the material there used is human hair.

It is urged on behalf of the plaintiffs that the language of the Claims is to be considered in the light of the prior state of the art and of the application of the inventor's discovered improvements to the old mats, and that the merit of the invention or discovery is to be found in the fact that the use of long fibres or threads of hair which are free from intermixture of wool and in the weaving of these in the manner described, and that the patentability of the discovery lies in the happy combination of certain known elements borrowed from the weaver's art producing the improved results above outlined.

The principle is urged that the inventor is not confined to the one source of material mentioned in his Claim if the material is used in the same combination for the same purpose and is productive of the same results, although the material used may come from some other source of supply.

The argument in substance is that the words as used are merely descriptive, and the special material or source of supply named is also merely descriptive or preferential, and that the Claim covers anything and everything which is the equivalent of the material and methods of its employment mentioned in the Claims.

The argument for the defendant proceeds upon the pro-
36 position of fact that the word animal hair has a special, technical and limited trade significance in the sense that it is used as exclusive, among other things, of human hair, and the inventor having expressly limited his Claim to a mat, the material of whose manufacture was animal hair, cannot be permitted to so extend his Claim as to include human hair, which in his application and in his Claims he had expressly and intentionally excluded.

The further claim is made that there is no patentable novelty in the mat which the defendant claims to have invented.

It will thus be seen that the question of infringement is to be

determined in accordance with the doctrine of equivalents. We start off with the idea of the aim to be accomplished and the means by the use of which the result is attained. The end in view may be the same and yet the conception of the means by which the result is to be brought about may be entirely different and the essential idea independent and wholly different in the one case and in the other. What may be termed the general idea of the means employed may be the same but may be developed in a wholly independent and different way. On the other hand, the whole difference may be merely an immaterial variation in the form of the embodiment of the idea. In the first of the instances given the two inventions may exist side by side without either overlapping the other. In the second, one of the inventions would be an improvement on the other. In the last instance, the succeeding method would be a mere copy of the other and without any inventive merit whatever. Tested by these principles we have here an identity of results. The question is reduced, therefore, to the narrow limits of a comparison of the means employed to reach the end desired. This comparison discloses a further identity of means except only in the variation of the use of human hair as distinguished from the hair of animals

37 The substituted material produces the same result. It is used as a means operating in precisely the same way. There is, therefore, an identity both with respect to the final purpose and the means of accomplishing the desired result.

If a claim of the plaintiff broad enough to cover any means of serving this purpose can be supported a finding of infringement in this sense would follow notwithstanding the fact which we find for the defendant that the appellation "animal hair" does not in its technical, trade or commercial signification include human hair.

This leaves in the case only the question of the validity of the patent, and this turns on whether the claimed invention possesses patentable novelty and merit. That the plaintiffs' make of mats possessed commercial novelty and value is beyond denial. The question broadly stated is whether the designing of the plaintiffs' mat called into exercise the inventive faculty or merely the skill of the fabricator. The design embraces two meritorious features. One is in making use of the differential qualities of animal wool and animal hair with respect to their felting characteristics. The designer showed judgment in his choice of material. The other is in the use made of the material when selected—the exercise of judgment in the application of the principles of the weaver's art as well as a display of the skill of the weaver. Let us first clear the decks in order to cope with this problem. The oath of the applicant and the grant of letters patent make out in its evidential aspect a prima facie case of patentable novelty. This must be overcome by proofs. The weight of the evidence is that with respect to the use made of the material of which the mat is composed, the designer has simply made a draft upon the known resources of the weaver's art.

38 The use of woof and web and all possible variations in the length and in the mode of applying the fibres or threads in the process of weaving are old. The evidence for the defendant to

be directed to the other features of the claimed invention is very meagre. It may indeed be said to be absent.

At the trial of the case we were very strongly impressed with the thought that the defendant had failed to meet the plaintiffs' prima facie case and that in consequence the plaintiffs' must prevail. This must still be so unless this patent on its face discloses want of patentable novelty in the features not met by the evidence for the defendant. The test of the plaintiffs' case is therefore the demurrer test. Put into a nutshell the question is this: Is invention involved in making use of a known quality inherent in some materials? There may be, of course, in the apparatus or method employed but the question relates to the mere use of the material. The substitution of one material for another by bringing in a new quality may result in gain. It did so here. We feel the strength of the appeal which lies in the fact that the Claims of the plaintiffs are based upon at least undoubted commercial novelty and utility. Is there, however, invention in the sense of patentable novelty? There is the highest authority for the proposition that there is no rule of law that the substitution of one material for another is not patentable. It is a horn-book principle that there is no invention in substituting better material for that formerly in use. The test has been stated to be whether the change of material results in a new function. Patent claims have also been upheld when supported by a gain in efficiency of cost of manufacture. To allow a monopoly of a quality in matter because of its discovery would have far reaching consequences of tremendous importance. The broad principle has been discussed in well known cases. The claim here goes further than in
39 Celluloid Manufacturing Co. vs. Chemical Co., 36 Fed., 110 and King vs. Anderson, 90 Fed., 500 in which patents were upheld because better and cheaper results were produced. Applied to the facts in this case the principle involved has this bearing. Mats were in use which were made of camel's hair. Defects developed. A cause for this was found in the fact that camel's hair readily felts. It is known that hair felts less readily than wool. The patentee makes a mat woven of hair obtained from the manes and tails of horses and substituted it for camel's hair. A better and cheaper mat is produced. A mat so made is therefore claimed to be patentable. Such claim might be supported by the distinction that although a natural force, power or principle discovered to be possessed by any material cannot be patented yet it may form a constituent element of a process of manufacture or of a composition of matter existing as a product which may be patented. The defendant discovers that a mat made of another material such as human hair will produce the same result. It at once becomes apparent that the plaintiffs to exclude the defendant and others from the use of the second mat must make good their claim to alone make use of this non-felting property of hair in the make-up of mats. They can only do so on the basis of original discovery. The faculty of invention is not otherwise called into exercise. If the principle is known and its application in use the only field left open is one for the exercise of judgment in the selection of material in

which the quality called for resides in the greatest abundance. This displays the skill of the fabricator not invention.

The conclusion is that in weaving mats made of human hair the defendant has not encroached upon any rights of the plaintiffs, and a decree dismissing the Bill, with costs, may be submitted.

40 *Decree.*

Filed May 1, 1915.

Before DICKINSON, *J.*:

This case coming on to be heard on pleadings and proof and the Court having heard counsel for the respective parties, and upon due consideration finds that the defendants have not infringed Letters Patent of the United States, No. 758,574 and 758,575, the patents in suit, it is therefore

Ordered, Adjudged and Decreed that the Bill of Complaint be dismissed with costs to the defendants.

By the Court.

Attest.

GEORGE BRODBECK,
Deputy Clerk.

Dated, Philadelphia, Pa. April 30, 1915.

Approved as to Form:

WEAVER & DRAKE,
Attorneys for Defendants.

Assignment of Errors on Appeal.

Filed June 14, 1915.

And now on this 14th day of June, 1915, come the said complainants by E. Hayward Fairbanks, their solicitor, and say that the decree in said cause is erroneous and against the just rights of the said complainants, for the following reasons:

First. The Court erred in finding that the patents in suit, No. 758,574 and 758,575, are invalid because of lack of invention in view of the prior art.

41 Assignment of Error.

Second. The Court erred in finding that the defendant had not infringed Letters Patent of the United States No. 758,574 and 758,-575, the patents here in suit.

Third. The Court erred in dismissing the Bill of Complaint.

Fourth. The Court erred in not finding that the defendant had infringed the said Letters Patent, Nos 758,574 and 758,575.

Fifth. The Court erred in not awarding to complainants an injunction and an account for profits and damages as prayed for in the Bill of Complaint.

Wherefore the said complainants pray that the said decree be reversed and that the said Court may be directed to enter a decree in accordance with the prayer of the Bill of Complaint.

E. HAYWARD FAIRBANKS,
Solicitor for Complainants.

MUNN & MUNN,
T. HART ANDERSON,
Of Counsel for Complainants.

Philadelphia, Pa., June 14th, 1915.

Stipulation of Counsel as to Making up Transcript of Record.

Filed June 14, 1915.

It is stipulated and agreed by and between the parties to this cause that the transcript of record on plaintiffs' appeal to the United States Circuit Court of Appeals for the Third Circuit, in said cause, shall consist of the following:

42 1. Bill of Complaint;
2. Answer;
3. Opinion of the Court;
4. Decree;
5. Assignments of Error;
6. Petition for Appeal;
7. Order allowing Appeal;
8. Condensed statement of evidence prepared by plaintiffs-appellants, including plantiffs' and defendants exhibits, pursuant to Equity Rule 75;
9. Citation;
10. Bond sur appeal;
11. Copy of this præcipe;
12. Clerk's certificate.

E. HAYWARD FAIRBANKS,
Counsel for Plaintiffs-Appellants,
FREDERICK S. DRAKE,
Counsel for Defendant-Appellee.

June 8, 1915.

Before Dickinson, *J.*

Approved by the Court.
Attest.

GEORGE BRODBECK,
Deputy Clerk.

June 14, 1915.

43 EASTERN DISTRICT OF PENNSYLVANIA,
United States of America, sct:

I, William W. Craig, Clerk of the District Court of the United States for the Eastern District of Pennsylvania, do hereby certify that the annexed and foregoing is a true and faithful copy of so much of the Pleas and Proceedings in the case of Werk vs. Parker, No. 1277, June Session, 1914, as per stipulation filed, a copy of which is hereto annexed, now remaining among the records of the said court in my office.

In Testimony Whereof, I have hereunto subscribed my name and affixed the seal of the said District Court at Philadelphia, this 21st day of June, in the year of our Lord one thousand, nine hundred and fifteen and in the one hundred and thirty-ninth year of the Independence of the United States.

[SEAL.] WILLIAM W. CRAIG,
Clerk District Court U. S.

44 In the United States Circuit Court of Appeals for the Third Circuit, October Term, 1915.

No. 1990. (List No. 35.)

ROBERT F. WERK, and ROBERT F. WERK, and MRS. JOHN LEWIS Kennedy, Co-partners Doing Business under the Name of Robert F. Work & Company, Appellants,

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners Doing Business under the Name of F. T. Parker Co., Appellees.

And afterwards, to wit, on the seventeenth day of November, 1915, come the parties aforesaid by their counsel aforesaid, and this case being called for argument sur pleadings and briefs, before the Hon. Joseph Buffington, Hon. John B. McPhearson and Hon. Victor B. Woolley, Circuit Judges, and the Court not being fully advised in the premises, takes further time for the consideration thereof.

And afterwards, to wit, on the twenty-ninth day of March, 1916, come the parties aforesaid by their counsel aforesaid, and the Court now being fully advised in the premises, renders the following decision:

45 In the United States Circuit Court of Appeals, for the Third Circuit, October Session, 1915.

No. 1990.

ROBERT F. WERK, and ROBERT F. WERK, and MRS. JOHN LEWIS Kennedy, Co-partners Doing Business Under the Name of Robert F. Werk & Company, Appellants,

v.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners Doing Business under the Name of F. T. Parker Co., Appellees.

Appeal from the District Court of the United States for the Eastern District of Pennsylvania.

Before Buffington, McPhearson and Woolley, Circuit Judges.

Buffington, *J.*:

In the court below Robert F. Werk & Company, the owners of two divisional patents, Nos. 758,574 and 758,575, granted April 26, 1904, to Robert F. Werk, for an oil press mat, filed a bill
46 charging the F. T. Parker Company with infringement thereof. The claim of 758,574 in issue is for:

"An oil-press mat or cloth made entirely of long animal hair and consisting of warp and weft threads, said weft-threads being composed exclusively of soft, pliable hair and the warp-threads greatly exceeding the weft-threads in number per square inch."

That of 758,575 in issue is for:

"An oil-press mat or cloth consisting of warp-threads and weft-threads, each composed exclusively of long hair derived from animals' tails and manes, which hair is soft and pliable; the warp-threads exceeding the weft-threads in number per square inch, and the weft-threads being thicker than the warp-threads."

On final hearing the Court below entered a decree dismissing the bill on the ground of non-infringement. Thereupon the plaintiff took this appeal.

The case has given us some concern. It relates to the great field of cotton seed oil extraction—an industry with which we are not familiar in this Circuit. The testimony is meagre and throws little if any light on the decisive questions involved. As the tonnage of cotton seed is double that of the cotton crop itself, as the value of by-product possibilities is now being recognized, and as the device here involved made possible, inter alia, the recovery of more than one and a half per cent. of oil and a reduction of eight cents per ton in operative cost, it will be apparent that the case is one that challenges the attention of the Federal Courts to which is entrusted that most responsible commercial duty of decreeing the reward of a limited monopoly to a patentee who contributes something novel, useful and inventive to a great industry, or on the other hand,
47 of protecting such an industry from the unwarranted burden of a monopoly by one who has really not given it any-

thing of that character. In view of these facts we have felt constrained to give to this case a range of somewhat broader examination and discussion than its meagre proofs suggest.*

As we have said, the case concerns the extraction of oil from cotton seed. The ordinary of such extraction consists in chopping up, heating and otherwise treating the cotton seed preparatory to pressing. This mash is next spread on a part of a mat of camels' hair. The other end of the mat is then doubled over the mash and the whole subjected to a pressure of several thousand pounds. This pressed the oil from the mash and strained it through the mat. For these camels' hair mats the patentee, Werk, substituted mats woven of horse hair, and on the two divisional applications as above he was granted the two claims quoted.

It is apparent the essence of his invention, if such it be, consists not in any new method of weaving mats, but in weaving them from the hair of other animals than camels. In other words, his device is an article of commerce, viz., an oil-press mat, woven it is true in a particular way, but in one claim limited to being "made entirely of long animal hair," and in the other to being "composed exclusively of long hair derived from animals' tails and names."

The proofs show that the horse hair mats of complainant have certain substantial advantages over those made of camels'
48 hair, in that they last twenty days as compared with the five days' life of a camels' hair mat. In the seed cake pressed on horse hair mats there remains an average of 5.92% of oil, while in that pressed on camels' hair 7.50% of oil is retained. The cost of camels' hair mats is eighteen cents per ton of seed pressed, while with horse hair but ten. In addition to this the seed cake is imbedded in the camels' hair mat by pressure and has to be separated by a special machine. It does not so imbed in the horse hair mats, and can be readily stripped off. It will thus be seen that Werk's mat forms an important and valuable economical feature in the industry. Recognizing its value as a hair mat the defendants wove their mats from the long hair of Chinamen's cues, which hair it seems is an article of commerce. The proofs satisfy us that such human hair mats have the same functional qualities in oil pressing as horse hair mats.

The value of Werk's device being shown by the proofs, the case resolves itself into two questions—the validity of his patents and the infringement of their claims.

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*Encyclopedia Americana, Vol. 5, article Cotton-seed Oil Industry, by Thomas R. Chaney, 1903 (cited by University of Pennsylvania Library), shows the importance of the cottonseed oil industry:

"When it is considered that the seed of the cotton plant more than pays the entire expense of ginning, baling and tying the crop, the economy it effects is plainly seen. * * * In fact, the whole agricultural life of the South has been benefitted by this formerly despised gift (the seed) of old King Cotton, and it is only just to say that the people are becoming appreciative of that fact."

On the part of the defendants it is contended that the change from camels' hair to horse hair is a mere obvious substitution, and therefore does not involve invention. Moreover, it is alleged that if there be invention in such change, that the substitution of human hair for horse hair involves more invention, and for that reason, and because Werk's patent claims must be restricted to horse or animal hair, they are not infringed by defendants' use of human hair. The term camels' hair is somewhat misleading, for the covering of a camel is, for the most part, wool, which wool shades off into the few straggling long hairs which give it the name of camels' hair. But when woven into these oil mats it is the wool which makes it act differently from a horse hair mat, which has no
49 wool in it. Without entering into a detail comparison of wool and hair, it suffices to say that the essential difference is the capacity of one, and the incapacity of the other, to mat or "felt" as it is technically called. Felting is caused by the tiny hooks or scales on wool which grip and mat on pressure and contact with other strands. A true hair has no such hooks and therefore will not mat. It is this felting capacity that makes a camels' hair mat become so tight as to prevent, to a degree, the passage of oil which a horse hair mat will pass. And it is the absence of this felting in a horse hair mat which makes it possible to strip off the seed cake while it has to be mechanically torn from the felted camels' hair one. Felting, as its characteristic distinction from hair, is well known in the textile industries. Thus in Dooley's Book of Textiles, it is said:

"The chief characteristic of wool is its felting or shrinking power. This felting property from which wool derives much of its value, and which is its special distinction from hair, depends in part upon the kinks in the fibre, but mainly upon the scales with which the fibre is covered. These scales or points are exceedingly minute, ranging from about 1100 to the inch to nearly 3000. The stem of the fibre itself is extremely slender, being less than one thousandth of an inch in diameter. In good felting wools the scales are more perfect and numerous, while inferior wools possess fewer serations, and are less perfect in structure. In the process of felting the fibres become entangled with one another, and the little projecting scales hook into one another and hold the fibres closely interlocked. The deeper these scales fit into one another the closer becomes the structure of the thread."

This non-felting of hair the patentee has taken advantage of in his device, and points out in one specification, where he says:

" * * * hair strands afford good drainage for the oil and impart a glossy surface to the fabric that enables the cake
50 to be introduced with facility and the article to be stripped with ease from the compressed material."

And in the other:

"The highest grade of mat now in general use is made from camel's hair; but camel's hair is objectionable, because it packs and

felts together when in use to such an extent as to hinder the free flow of the oil, and the yield per ton of seed is greatly reduced by reason of this felting of the camel's hair. The oil is compelled to seek an outlet on the sides where there is no cloth to hold the seed or meats from being washed out into the receiving tanks, which deteriorates the quality of the oil. Camel's hair also stretches from one-fifth to one-third of its original length, which is objectionable, as this requires the cloth to be cut too short to start with, and before it is worn out it has stretched too long for convenient handling. All these objections are overcome by the use of horsehair, and the horsehair being soft it retains all the good features of camel's hair."

It has therefore seemed to us that the change from camel to horse hair mats was sufficient to constitute invention in this art if such use of horse hair mats was first disclosed to the oil pressing art by Werk. But just here Werk's patents meet a fatal obstacle, for a cursory examination of standard works shows that at most Werk's use of horse hair mats in the present practice of cotton seed oil extraction was but a revival of an old and well-recognized use of the horse hair appliances in the general art of oil extraction.

Turning to the 1895, edition of the Standard Dictionary, under the word hair, we find "hair cloth; specif.: mats woven from horsehair used in expressing oils, etc." The nature of this practice, thus briefly outlined in the dictionary, will be found by reference to the ninth edition of The British Encyclopedia, published in 1884, where, under the head of oils, it is said:

51 "The sequence of operations in treating oil-seeds for the separation of their contained oils is ordinarily as follows: (1) the crushing or grinding of the seed or other substance; (2) heating the oleaginous meal so prepared, and (3) expression of the oil by mechanical power."

Under the head of Pressing, the article then says:

"With the least possible delay the meal is transferred from the heating kettles, so that the oil may be pressed out while the material still retains its heat—measured quantities, say 10 or 12 lbs. of meal, are filled into woolen bags of strong, thick texture, sufficiently open and porous to allow free flow of the expressed oil, yet having consistency enough to resist rupture by the enormous pressure to which it is subjected. Each bag is further placed within 'hairs', thick mats of horse hairs bound with leather. In some methods of working press-cloths—not bags—are used; and the construction of recent presses is such as to dispense with the use of bags or other coverings."

Samuelson on Oil Well Machinery, 1858 (in proceedings of the Institution of Mechanical Engineers), Vol. 9, pp. 27-42, says:

"The bags after being filled are placed separately between what are called the hairs, which are bags made of horsehair with an ex-

ternal covering of leather. The same description of bags and hair are used whether the oil be expressed by means of the stamper, screw or hydraulic press." (Page 31.)

Spon's Dictionary of Engineering, 1874, Vol. 3, in discussing Samuelson's article, says:

"The bags into which the seed is measured from the kettles hold 10 lbs. of seed each, the horse hair wrappers into which they are deposited being 2½ feet long."

52 The use of horse hair in oil extraction is referred to in British patent 2645 of 1877, to H. C. Mewburn, for improvements in apparatus for pressing and filtering beet root juice, oils and other substances, as follows:

"The apparatus * * * acts both as a press and as a filter. * * * These filter cloths are composed of three thicknesses, the first consisting of perforated bands or straps * * * the second of coarse fabric of horse or other hair which forms the supple and elastic part of the filter, and the last of a fine and uniform fabric, such as merino, cashmere or alpaca, which constitutes the filter properly so called."

Grannt's Animal and Vegetable Fats and Oils, 1888:

"The material used in the manufacture of press-cloths and bags should be capable of great resistance, and while close enough to prevent any meal from penetrating, allow the oil to run out as freely as possible: properties not readily found combined in any one material. The most suitable materials are cotton, sheeps wool and horse hair.**

**The references above quoted were furnished by the Technical Department of the Carnegie Library of Pittsburgh, on request for publications showing the use of horse hair, prior to Werk's patents, in the extraction of vegetable oil. As the Court took judicial notice of the information thus disclosed by a highly specialized technical library, it was deemed fair to ascertain whether inquiry at libraries in other sections of the country would also disclose the prior use of horse hair mats in vegetable oil extraction. With that end in view, inquiry was made by letter of large public libraries, of the leading Universities in the East and several in the South and West, and from Colleges both East and West. The result, so far as pertinent citation goes, is given alphabetically below, such libraries not being listed where no books were cited.

Amherst College, Amherst, Mass., cites as follows:

Engineering Magazine—September, 1892—an article entitled, "The Cotton Seed Oil Industry," by Irwin W. Thompson. On page 826 occurs the following:

53 With such practices existing in the general art of seed

"The earliest form of hydraulic press used in oil mills was vertical containing five bags or compartments about nine by twenty inches for receiving the prepared kernels, which were in bags and enclosed still further in horse-hair 'mats' or books."

Popular Science Monthly—May, 1894. On page 107 is the following:

"The kernels are then pressed in woolen bags packed between horse-hair mats backed with leather and having a fluted surface inside to allow the oil to escape more freely."

Brown University, Providence, Rhode Island, cites:

United States Department of Commerce, Bureau of Foreign and Domestic Commerce, Special Agents' Series, No. 84, Part 1, 1914, p. 69, as follows:

"The Netherlands; oil mill methods. Most of the Dutch oil mills were built for linseed, and the original plan for linseed is followed for such other crushing as is done. * * * They (the cakes) were made by pouring the hot meats into woolen bags, and pressing between horse-hair mats, just as cotton-seed cake was made in the United States at one time."

Bowdoin College, Brunswick, Maine, cites:

British Encyclopedia, Vol. 11, p. 376, 1880, which states:

"Horse hair is woven into bags for oil and cider presses."

Public Library, Boston, Massachusetts, refers to Brannt and Andes works, which are quoted at length (see Congressional Library).

The Department of Agriculture Library, Washington, D. C., refers to and cites, "A Practical Treatise on Animal and Vegetable Fats and Oils," 1888, W. T. Brannt, which says:

"The bags of strong woolen stuff, when full, are pressed flat between horse hair mats and then brought into the press." (Page 102.)

"Before placing the heated seed-meal in the press it is put in woolen cloths or horse hair bags." (Page 107.)

"After the oil is expressed * * * the horse hair mats are taken out and the press cake removed from the bag." (Page 116.)

(For press-cloths.) "The most suitable materials are cotton, sheep's wool, and horse-hair." (Page 147.)

With one type of machine described the seed-meal is wrapped in woolen cloths and pressed without mats.

"The advantages of this machine are as follows:

"1. The expensive hairs are done away with.

"2. Each press instead of four cakes * * * can now accommodate eighteen on account of the slight thickness of the cakes themselves * * * and the absence of the hairs." (Page 120.)

Spons' Encyclopedia of the Industrial Arts, Manufactures and Raw Commercial Products, 1882, which in referring to methods of extraction of oils and fatty substances, says:

"In all these presses the hair wrappers, weighing some 26 lb. used in the old process are dispensed with." (Page 1453.)

54 oil extraction, practices of which the Court takes judicial

The Congressional Library, Washington, D. C., cites Andes' Vegetable Fats and Oils, London, 1897:

"These presses are arranged as follows: Four, six, eight, or ten wrought iron or steel rings are erected one above another in the press, each of them having a movable bottom of steel pierced with fine holes, and between every two rings a cast iron or cast steel plate is laid, the upper side of which is grooved, but the under side smooth. To these plates, which are inserted between the columns of the press, are attached iron rails in which the press rings are suspended, and serve as guides for the insertion, and withdrawal of the latter. In addition to this, each plate is surrounded by a channel for catching the expressed oil. The filling of the press is a simple operation. On the perforated bottom of each ring is laid a cover of plaited horsehair, wool or felt, on which the meal is spread and covered with a horsehair cloth. When the rings are all filled pressure is applied, forcing the grooved upper surface of each plate into the ring above, and thereby causing the oil to flow out through the horsehair cloth, the perforated steel plate and the grooves of the press plate, into the oil channel." (Page 71.) "* * * The cleaned seeds are passed into a rotary cylinder containing 24 circular fixed knives and an equal number of cutters, which divide the seed into very small pieces. The hulls are thus separated from the kernels, and form a valued food for cattle. The kernels are pressed between rollers like those in a cane sugar mill, and the oil runs out. The mass is then put into woolen press bags, laid between horsehair cloths covered with ruffled leather to enable the oil to flow more freely, and submitted to hydraulic pressure. The bags are exposed to warm pressing for 17 minutes, a time sufficient to force out all the oil, which collects in a channel, leaving only the dry kernels behind. These constitute the oil-cake of commerce." (Page 112.)

It also cites Brannt's A Practical Treatise on Animal and Vegetable Fats and Oils, Philadelphia, 1896, Vol. 1, Chap. X, Manner of Obtaining Fixed Oils (quoted in opinion and cited by Carnegie Library, Pittsburgh.)

Columbia University Library, New York, cites the two foregoing authorities.

The General Library, Chicago, cites:

Cotton Seed and its Products, No. 36, U. S. Department of Agriculture, 1896, which, after describing the process of extracting cotton-seed oil, says:

"The cakes as they come from the (cake) former are wrapped in hair cloth and removed by hand to the press, where they are arranged in a series of boxes, one above the other, between the plates of the press and subjected to a pressure of 3000 to 4000 pounds to the square inch by hydraulic power."

Harvard Library, Cambridge, Mass., cites:

Scientific American Supplement, No. 830, November 28, 1891, which gives a comprehensive résumé of Cotton Seed Extraction by

55 notice, it follows that Werk's patents did not disclose any

D. A. Tompkins, in which he describes the early English mills which were used shortly after the Civil War, and says:

"The process of working them was very simple. They are first crushed under old fashioned milling stones, then put in steam jacketed kettles with mechanism stirrers and cooked. The product was dumped from the kettles or heater into a wooden bin, and from the bin it was dumped into small cloth sacks, these being in turn enclosed in a hair mat. The whole was put into a hydraulic press containing about five boxes, and put under about two or three thousand pounds pressure to the square inch, ten to twelve inches in diameter."

Hobart College, Geneva, New York, cites:

The Encyclopedia Britannica, 9th Ed., 1894, Vol. 17, p. 742, article on "Oils," as follows:

"Measured quantities of the meal are filled into woolen bags * * * each bag is placed within 'hairs,' thick mats of horse hair bound with leather. In some methods of working, press-cloths—not bags—are used; and the construction of recent presses is such as to dispense altogether with the use of bags or other coverings."

It also cites the Popular Science Monthly, cited by

Kenyon College, Gambier, Ohio, viz., an article on Waste Products; Cotton Seed Oil, Vol. 45, Popular Science Monthly, p. 107 (March, 1894), as follows:

"The kernels are conveyed to rollers where they are crushed very fine. They are thence removed to the heaters * * * then placed in woolen bags, packed between horse-hair mats, backed with leather and having a fluted surface inside to allow the oil to escape more freely."

Knox College, Galesburg, Ill., cites:

Encyclopedia of Chemistry, J. B. Lippincott & Co., 1879, as follows:

"The bags, after being filled, are placed separately between what are called the 'hairs,' which are bags made of horse hair, with an external covering of leather. The same description of bags and hairs are used, whether the oil be expressed by means of the stamper, screw, or hydraulic press. Several different kinds of presses are used in the extraction of oils, as the screw press, the wedge press, and the hydraulic press."

Also Ure's Dictionary of Arts, etc., Longman, Green & Company, 1881:

Showing the use of "horse hair envelopes" in hydraulic oil presses and also stating that as the oil leaves the seed "it passes through the woolen bags and horse hair mats."

Also reference given by the Department of Agriculture Library in Spon's Encyclopedia, etc., herein quoted.

Also Ure's Dictionary of Arts, etc., D. Appleton, 1866, showing in seed oil extraction the use of horse hair bags (called hairs), and hair cloths, lined with leather; and also the 1847 edition of Ure's

56 such novel information to the cotton seed art as warranted a grant to him of patent monopoly therefor based on the

Dictionary, and the 1862 edition of Charles Tomkinson's Encyclopedia of Useful Arts, showing the use of hair cloth and hair bags in oil extraction. There is also cited the Techno-Chemical Receipt Book, Henry Carey Baird & Company, 1866, where in describing seed oil extraction, it is said:

"The hot meal is then placed between the sides of wrappers formed of thickly woven horse hair backed with corrugated leather to facilitate the escape of the oil, which are called 'hairs' or 'books' the hair and its continued bag or seed and then placed in the hydraulic press.

Lafayette College Library, Easton, Penna., also gives the reference to Popular Science Monthly cited by Amherst and Kenyon. It also cites an article in the Engineering Magazine, Vol. 3 (1892), p. 826, where, in referring to a method of cotton-seed oil extraction, it is said:

"The earliest form of hydraulic press used in oil mills was vertical, containing five boxes or compartments about 9 x 20 inches, for receiving the prepared kernels which were in bags and enclosed still further in horse-hair mats or 'books.' * * * The next step was in substituting steel for horse-hair mats, whereby the space occupied was so reduced in thickness that two bags might be placed in one box, doubling the capacity of each press."

Lehigh University Library, South Bethlehem, cites the 1867 edition of Ure's Dictionary of Arts, Vol. III, p. 280, showing in oil seed extraction the general use of woolen bags wrapped in hair cloths, and the same thing in Muspratt's Chemistry as Applied to Arts, London, Vol. II, p. 607, prior to 1878, and Sadtler's Organic Chemistry, 1891, pp. 52, 53.

The University of Minnesota, Minneapolis, cites Lamborn's Cotton Products, which, while published in 1904, refers to the use of horse hair mats in oil extraction as having been used in old style presses, as follows:

"The modern plate-press * * * has almost entirely superseded the old-style box-press, owing to its greater capacity * * * both in operation and use of mats and bags. With the box-press the cooked meats were placed in woolen bags and these spread out and equalized in thickness on 'mats.' These mats were closely woven from horse-hair and covered, etc."

The New York Public Library, New York City, shows the general use of horse-hair in the oil extracting art in these citations:

Andes, E. A.: Vegetalilische Fette und Oele * * * Wien; A. Hartleben, 1896, pp. 65-66:

"Eigentlich is es ganz unmoglich, beide geforderte Eigenschaften in aller Vollkommenheit in einem und demselben Gewebereinigt zu haben; am besten erfullt noch ein sehr dicht gewebter Baumwollstoff diesen Zweck, und legt man, um das Platzen der Presssacke zu verhindern, um dieselben wahrend des Pressens ein dichtes, aus Pferdehaar angefertigtes Gewebe."

(It is really impossible to have the two demanded qualities per-

57 use of horse hair. This conclusion renders it unnecessary

fectly united in one and the same texture; a very closely woven cotton material answers this purpose the best and therefore in order to prevent the bursting of the pressed bags, one places around these during the process of pressing a close texture woven out of horse hair.)

Brannt's Treatise, from which we have already quoted, is also cited by this Library.

Dammer, Otto: Handbuch der chemischen Technologie * * * Bd. 3, 1896, p. 22:

"Vor dem Pressen wird der zerkleinerte Samen in Beutel gefullt oder in wollene Tucher gepackt, die dem grossen Druck widerstehen mussen, ohne dabei viel Oel aufzusaugen. Man schlagt sie dann noch in aus Pferdhaar gawebten Stoff ein."

(Before pressing, the shredded seed is put into bags or packed in woolen cloths, which must resist the great pressure without soaking in much oil. Later you wrap them into a material woven from horse hair.)

Fontenelle, J. S. E.: Theoretisch-practisches Handbuch der Oelfabrication und Oelreingung * * * Weimar; Voigt, 1853, pp. 46-47:

"Bei der deutschen Verpackungsart gebraucht man Tucher aus Schnuren von funf-bis sechsfachen Pferdehaaren, nach Art der von den Seiten geflochtenen Gurten."

(In the German way of packing they use cloths of five or six ply horse hair similar to a girth.)

Hurst, George H.: Soaps * * * London: Scott, Greenwood & Co., 1898, p. 84:

"The bags are next enclosed in woolen covers, and are then wrapped again in what are called 'hairs,' which are strong cloth made of horsehair."

Vincent, C. W., editor: Chemistry, Vol. 2, London (1882), pp. 456-457:

"The crushed cake is enclosed in a press cloth or bag previous to its introduction into the case. The bags and cloths used for this purpose are made of different materials, the object being to have them sufficiently strong to bear the force exerted while at the same time, they are not so thick or porous as to retain any great quantity of liquid. Woolen cloth and canvas are especially manufactured with a view to its application to this process of expression. The bags, after being filled, are placed separately between what are called the 'hairs,' which are bags made of horse-hair, with an external covering of leather. The same description of bags and hairs are used, whether the oil be expressed by means of the stamper, screw, or hydraulic press."

Wright, C. R. A.: Animal and vegetable fixed oils, fats, butters and waxes. 2d Ed., London, Charles Griffin & Company, 1903, p. 262:

"In some of the Marseilles oil factories an arrangement is in use known as the 'Estrayer Cylinder,' the action of which is somewhat

to discuss the question of infringement which the Court be-
58 low decided in favor of the defendant.

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akin to that of the wedge press. The apparatus consists of two cylinders, one inside the other, of which the outer acts upon the inner by means of a series of inclined planes, the inner cylinder being composed of eight segments which either close up tightly or separate according as pressure is exercised or removed by the position of the outer cylinder. Screens made of esparto grass and horsehair are employed instead of oil-bags of the same material (scourtins) such as are employed in other forms of press."

(The Estrayer apparatus is described in the Journal of the Society of Chemical Industry, London, Vol. 13, 1893, p. 49; also in United States Consular Reports, No. 142, July, 1892, pp. 485-495.)

Princeton University, Princeton, N. J., cites the Ure's Dictionary of Arts, Vol 2, p. 286, Appleton & Co., 1863, as follows:

"Linseed, rapeseed, pop-yseed, and other oleiferous seeds were formerly treated for the extraction of their oil, by pounding in hard wooden mortars with pestles shod with iron, set in motion by cams driven by a shaft turned with horse or water power, then the triturated seed was put into woolen bags which were wrapped up in hair-cloths, and squeezed between upright wedges in press-boxes by the impulsion of vertical rams driven also by a cam mechanism. In the best mills upon the old construction, the cakes obtained by this first wedge pressure were thrown upon the bed of an edgmill, ground anew and subjected to a second pressure, aided by heat now, as in the first case. These mortars and press boxes constitute what are called Dutch mills. They are still in very general use both in this country and on the Continent; and are by many persons supposed to be preferable to the hydraulic presses."

Rutgers College, New Brunswick, N. J., cites Farmers Bulletin No. 36, p. 7, where under the title "Methods of Manufacturing Cotton-Seed Products" it is said:

"After this crushing the meats drop into a conveyor, which delivers them to the heaters. * * * The object of the cooking is to expand the oil in the meats and render it more fluid, and to drive off the water, which not only reduces the quality of the oil but is liable to work serious injury to the expensive cloths used to envelop the cakes in the press. * * * Close to the heaters stands the 'former,' which shapes the meats into cakes for the press. The cakes as they come from the former are wrapped in hair-cloth and removed by hand to the press."

And also call attention to the use of hair cloths in various seed extractions shown in Appleton's Dictionary of Mechanics, Vol. II, pp. 448-9, Ed. 1866.

Trinity College, Hartford, Conn., cites in chronological order as follows:

Traité Complet De Mecanique Appliquee aux Arts, Etc., Par., Borgnis, Vol. 5, p. 268, Des Machines d'Agriculture, Paris, 1819:

"a, Indique la pile de cabas, ou sacs de jonc marin o ude crin, remplis des matieres qui douvent subir le pressurge."

59 'In view of the fact that the references quoted were not given in evidence we will defer sending the mandate to the

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(Select baskets or sacks of sea weed or of hair, fill with material which is to undergo the pressing.)

(Page 278): "Pour faire ces sacs, on peut se servir de tissus de crin, de treilles fabriques avec de petites ficelles de chanvre, de coutil, de toute grosse toile forts, d'etoffe de laine, de tissus de jonc ou spart: le crin est preferable, parcequ'il n'absorbe point d'huile, parce que les mailles de son tissu ne se touchent pas aisenment, par sa dures, sa resistance a la force de pression; enfin par la facilité que l'on à le neetoyer."

(In order to make these sacks, one can use weaves of hair, sackcloth made of hemp twine, ticking of heavy strong cloth, linen materials, weaves of seaweed [basis] or an earthy mineral of shining lustre: the air is preferable because it does not absorb the oil, because the meshes of its tissues do not touch each other easily, through its lastingness, its resistance to the force of pressure, finally through the case with which one can clean it.)

Ree's Cyclopædia of Arts, London, 1819, where, under the head of oil mills, it is said:

"Olive and other vegetable oils, the products of the south of Europe, are also expressed by a machine, but it is not called a mill, being simply a strong screw-press, provided with a windlass or capstan, to give it a greater power; in short, it is the same machine as the Cyder Press (see that article). The olives are first pounded, or bruised, either in a large mortar, or by a running stone, in the same manner as the apples for making cyder. The pulp thus produced is put up in bags made of horse-hair, and a pile of these, being made up under the press, the screw is forced down by men working a long lever, and the oil expressed."

Ure's Dictionary, 3d London Ed., 1833, p. 900, where it is said: "The pressed cake is again thrown under the edge stones, and after being ground the second time should be exposed to a heat of 212 degrees Fahrenheit, in a proper pan, called the steam kettle, before being subjected to the second and final pressure in the woolen bags and hair cloths."

The English Encyclopædia by Knight, Vol. 6, p. 26, London, 1861, says:

"In the wedge-press, of which there are many varieties, the crushed seeds are put into bags of hair-cloth, or some similar material, and these bags are then placed between boards or blocks of wood within a very strong and massive frame-work. The small end of a wedge is then introduced in such a way between the plates or the boards that, when it is driven down by the blows of a ram or pestle, it may compress the bags with enormous force. * * * Some of these act horizontally, the bags being, as in the wedge-press, placed vertically and separated from one another by cast-iron plates; but in others, the bags are piled upon one another in cast-iron cases, and placed in a vertical press. The seed is put into bags of flannel or of horse-hair. Among other advantages it is

60 court below until such time has elapsed as will enable coun-
61 sel to determine whether any such reasonable ground exists as warrant a motion for re-argument or other form of relief to meet such references.

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stated that the hydraulic or hydrostatic press requires less space than a stamping mill which could do the same work, and that the hairs and bags are found to last longer with it than with the old machine."

Attention is also called to Meyer's Konversations, Lexikon, Leipsig, 1906, Vol. 15, p. 53, which while post-dating Werk's patents, refers in an article on oil to common existing practice as follows:

"Beim Pressen schlagt man das Samenmehl in starke wolleme Tucker oder fullt es in Sacke und umgibt diese noch mit einem Gewebe aus Pferdehaar."

(In pressing [squeezing] one wraps the seed flour in heavy woolen cloths or puts it in bags and covers these with a layer [fabric] of horse hair.)

Attached to these citations the librarian adds: "From various indications I am of the opinion that the use of horse-hair goes back to classical times. I have not yet been able to find a passage to confirm the conjecture. However, I find a passage in Pliny in which horse-hair sieves are mentioned:"

"Plini Secundi, Book XVIII, Chap. 28: cribrorum genera Galliae saetis equorum invenere, Hispanias lino excussoria et pollinaria, Aegyptus papyro atque junco."

(The Gauls have invented a kind of sieves made out of horse-hair, the Spaniards bolting cloths and meal-sieves made out of flax, Egypt made out of papyrus and rushes.)

Tulane University, New Orleans, Louisiana, cites the Techno-Chemical Receipt Book, by Brannt and Hall (1886), hereinbefore quoted in the references by Knox College Library.

Also, Pitman's Common Commodities of Commerce. Oil, by Mitchell, which says:

"The kernels, technically known as the 'meats' are now ready for crushing between iron rollers, after which process they are heated in steam jacketed kettles and shaped into cakes in a press termed the 'former.' These cakes are wrapped in hair cloths and subjected in hydraulic presses to a pressure of 3000 to 4000 pounds to the square inch."

From Yale University, New Haven, Conn., the librarian cites Lamborn's Cotton-Seed Products (Van Nostrand, 1904), also cited by the University of Minnesota, which post-dates the patents, and adds: "We have here no references to the use of horse-hair mats."

From the foregoing summaries it will be seen that the Court was fully justified in taking judicial notice of the use of horse hair in the extraction of vegetable oils prior to Werk's patents, and that inquiry at the libraries listed would, with a very few exceptions, have disclosed the use of horse hair mats or bags as a common agency in vegetable oil extraction.

62 In the United States Circuit Court of Appeals for the Third Circuit, October Term, 1915.

No. 1990. (List No. 35).

ROBERT F. WERK and ROBERT F. WERK and Mrs. JOHN LEWIS Kennedy, Co-partners, Doing Business Under the Name of Robert F. Werk & Co., Appellants,

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners, Doing Business Under the Name of F. T. Parker Co., Appellees.

Appeal from the District Court of the United States for the Eastern District of Pennsylvania.

This cause came on to be heard on the transcript of record from the District Court of the United States, for the Eastern District of Pennsylvania, and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged and decreed by this Court, that the decree of the said District Court in this cause be, and the same is hereby affirmed, with costs.

(Signed) JOHN B. McPHERSON,
Circuit Judge.

Philadelphia, March 29, 1916.

Endorsed: No. 1990. Order Affirming Decree. Received and filed March 29, 1916. Saunders Lewis, Jr., Clerk.

63 United States Circuit Court of Appeals for the Third Circuit, October Sessions, 1915.

No. 1990.

ROBERT F. WERK and ROBERT F. WERK and Mrs. JOHN LEWIS Kennedy, Co-partners, Doing Business Under the Name of Robert F. Werk & Co., Complainants-Appellants,

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners, Doing Business Under the Name of F. T. Parker Company, Defendants-Appellees.

Petition for Rehearing in Behalf of Appellants.

E. Hayward Fairbanks, J. Bonsall Taylor, For Petitioners.
Munn & Munn, T. Hart Anderson, of Counsel.

Received and filed May 3, 1916. Saunders Lewis, Jr., Clerk.

64 United States Circuit Court of Appeals for the Third Circuit, October Sessions, 1915.

No. 1990.

ROBERT F. WERK and ROBERT F. WERK and MRS. JOHN LEWIS KENNEDY, Co-partners, Doing Business Under the Name of Robert F. Werk & Co., Complainants-Appellants,

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners, Doing Business Under the Name of F. T. Parker Company, Defendants-Appellees.

Petition for Rehearing in Behalf of Appellants.

To the Honorable the Judges of the above-entitled Court:

The petition of appellants, complainants below, respectfully represents:

That the above-entitled cause was argued before this Honorable Court upon November 17, 1915, and decided in an opinion filed March 29, 1916, which affirmed the decree of the Court below and concluded with the statement that:

65 "In view of the fact that the references quoted were not given in evidence we will defer sending the mandate to the Court below until such time has elapsed as will enable counsel to determine whether any such reasonable ground exists as warrants a motion for reargument or other form of relief to meet such references."

That your petitioners come now before you praying for a rehearing by reason of that which they believe to be error in your opinion, namely:

First. In holding the patents in suit invalid because both of evidence in the transcript of the record, and also of anticipatory matter disclosed by the action of this Court in a correspondence with certain universities and colleges, of which it took judicial notice.

Second. In failing to give adequate consideration to the presumption of validity arising from the grant of the patents.

Third. In failing to give controlling consideration to the fact that both of the two claims declared upon are laid not only to a particular woven structure of an oil-press mat, but also to an oil-press mat of such particular woven structure, when its threads are composed of animal hair.

Fourth. In failing to give due consideration to the fact that, although, as established by the investigation of this Court, a mat or woven fabric per se made of horse hair be old, and be also for the same purpose as that of the patents, there yet is no evidence whatever disclosed either by the transcript or by any one of the

66 many citations made a part of the opinion, that the old mat when made simply of horse hair, but not of horse hair woven

in the manner called for by the claims, was in fact that which created or made possible "the value of Werk's device shown by the proofs," and that to which, and to which alone, the commercial and revolutionary value of the invention as against the art as previously practiced, was due.

Your petitioners further pray that, in the event that upon rehearing this Court may change its opinion and sustain the validity of the patents, it will then and in such event consider and reverse the holding of the Court below, which found that the oil-press mat of the defendants which the proofs show to have been identical in weave but made of human instead of horse hair, when the functions of the two hairs were identical, was not an infringement of the claims sued upon.

E. HAYWARD FAIRBANKS,
J. BONSALL TAYLOR,
For Petitioners.

MUNN & MUNN,
T. HART ANDERSON,
Of Counsel.

We hereby certify that the foreging petition is made in good faith, not for the purpose of delay, is based upon good and substantial grounds, and that in our opinion justice and right require that the cause should be reheard and the opinion be corrected.

E. HAYWARD FAIRBANKS.
J. BONSALL TAYLOR.

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Argument.

While the record has been greatly amplified by the information sought, and taken judicial notice of by the Court, yet it has not, as we earnestly submit, been established either by the record in the court below or by the prior art of horse hair mats disclosed by the Court, that any person prior to Werk ever combined into an oil-press mat the particular weave of warp-threads and of weft-threads,—that is the relative pluralities and thicknesses of them called for by the claims sued upon,—when such weave was woven of long animal hair; and we further submit that there is no evidence whatever in this case and even now before this Court, which establishes that the admitted utility of the Werk invention and the admitted saving which resulted from its practice over the practice of the old art, were not absolutely and wholly due to the creation by Werk by the exercise of the inventive faculty, of the precise oil-press mat which his claims call for; and not one word of evidence in this case that any of the old hair-cloth mats and animal-hair-cloth mats, which the libraries of the Universities disclosed to the public long prior to Werk's invention, were ever possible of use, or in fact used, in this art in the same manner as the patented mats are used and with the effect of producing the far reaching results which, as this Court recognizes, have flown from Werk's inventions. The presumption is

wholly to the contrary, for, surely, a great industry is always searching for and when found availing itself of everything that is known to reduce cost and increase production.

68 The "demurrer test" makes little appeal to us, but the "confession and avoidance" test, so to express ourselves, makes a strong appeal, for, granting the old use of animal hair in weaves of well-known but different characters, but not of the character of those expressly recited in Werk's claims, we advance the thought that invention as this Court should, in our respectful judgment, construe it, resides in the doing of that which in its entirety this patentee did.

In Hanifen vs. Godshalk, this Court said:

"Now, it is a well-settled and familiar doctrine that an invention patented here is not to be defeated by a prior foreign patent unless its descriptions or drawings contain or exhibit a substantial representation of the patented invention in such full, clear, and exact terms as to enable any person skilled in the art or science to which it appertains, without the necessity of making experiments, to practice the invention. Seymour vs. Osborne, 11 Wall. 516, 555; Cahill vs. Brown, 3 Ban. & A. 580, 587, Fed. Cas. No. 2,291.

"Mr. Robinson, in his work on Patents (Vol. I, Par. 329), discussing the kindred defense of prior publication, states the rule thus:

" 'The invention described in the publication must be identical in all respects with that whose novelty it contradicts. The same idea of means, in the same stage of development, as that which the inventor of the later has embodied, must be thereby communicated to the public.' "

(Hanifen vs. Godshalk, 84 Federal, Page 649.)

69 Another thought comes to us, which is this:

The Division of the United States Patent Office which allowed and passed to issue the Werk patents in suit, not only presumably, but in fact, had before it in its own portfolios every prior patent for oil-press mats, and in the scientific library of the Patent Office, as well as in that of Congress, every one of the many publications to which the Universities from their no more abundant archives have called this Court's attention.

How, then, can the presumption—the legal presumption of patentability—arising from the prior art, not rebutted, although open to the Patent Office to rebut, be disregarded by this Court.

If the experts of the Patent Office with the art before them saw fit to grant these patents, is it not necessary in order to overthrow them that the whole—the entirety—of what Werk did should be found to have been done before him, or at least to have been fully described as to its entirety and not as to its separate entities, in a publication or in a patent antedating his invention?

We stand upon the ground that there is far more involved in Werk's invention than the mere making of a horse-hair mat, or an animal-hair mat, and the use of it to express the oil from the meat of cotton seeds, to effect the ultimate expression of oil, as Werk so advantageously effected it.

It is the doing of this work by a mat made both of animal hair and of animal hair when woven in a particular way, of threads having certain structural characteristics, that has accomplished the result adequately recognized by this Court, of enormously cheapening and bettering the operation of cotton seed oil extraction.

70 No Court and no text writer has ever yet defined in language applicable to all instances what constitutes invention.

Almost every invention is a self-centered composite of many inventive thoughts and of many things, and, as we submit, it is almost impossible to find or to apply a general rule of patent law which comprehends and is applicable to all cases.

This Court's own library is full of reported cases the holdings of which, so far as the definition of invention is concerned, are almost antipodal.

Under the present apparent desire of the Courts to sustain inventions of very slight character when great utility and saving of expense has resulted from their use, we venture most respectfully to express the hope that, in the absence from this case of evidence negativing the fact that the utility of what Werk did was due to his conception and use of a new mat structure as an entirety, this Court will give him the benefit of the doubt,—for doubt there assuredly is,—grant a rehearing, reverse its holding, sustain the patents and find infringement.

E. HAYWARD FAIRBANKS,
J. BONSALL TAYLOR,
For Petitioners.

MUNN & MUNN,
T. HART ANDERSON,
Of Counsel.

71 In the United States Circuit Court of Appeals for the Third Circuit, October Term, 1915.

No. 1990.

ROBERT F. WERK et al., Trading as ROBERT F. WERK & COMPANY,
vs.
F. T. PARKER COMPANY.

Sur Petition for Rehearing.

Per Curiam:

And now, to wit, May 23d, 1916, after due consideration, the petition for rehearing in the above-entitled cause is hereby refused.

Endorsed: No. 1990. Order Refusing Petition for Rehearing. Received and filed May 23, 1916. Saunders Lewis, Jr., Clerk.

72 UNITED STATES OF AMERICA,
Eastern District of Pennsylvania,
Third Judicial Circuit, sct:

I, Saunders Lewis, Jr., Clerk of the United States Circuit Court of Appeals, for the Third Circuit, do hereby Certify the foregoing to be a true and faithful copy of the original transcript of record and proceedings in this Court in the case of Robert F. Werk et al., trading as Robert F. Werk & Co., vs. F. T. Parker Company, on file, and now remaining among the records of the said Court, in my office.

In Testimony Whereof, I have hereunto subscribed my name and affixed the seal of the said Court, at Philadelphia, this twenty-sixth day of June in the year of our Lord one thousand nine hundred and sixteen, and of the Independence of the United States the one hundred and fortieth.

[Seal United States Circuit Court of Appeals, Third Circuit.]

SAUNDERS LEWIS, JR.,
Clerk of the U. S. Circuit Court of Appeals, Third Circuit.

73 UNITED STATES OF AMERICA, *ss:*

[Seal of the Supreme Court of the United States.]

The President of the United States of America to the Honorable the Judges of the United States Circuit Court of Appeals for the Third Circuit, Greeting:

Being informed that there is now pending before you a suit in which Robert F. Werk, and Robert F. Werk and Mrs. John Lewis Kennedy, co-partners doing business under the name of Robert F. Werk & Company, are appellants, and F. Thomas Parker and J. Thomas Robey, co-partners doing business under the name of F. T. Parker Company, are appellees, which suit was removed into the said Circuit Court of Appeals by virtue of an appeal from the District Court of the United States for the Eastern District of Pennsylvania, and we, being willing for certain reasons that the said cause and the record and proceedings therein should be certified by the said Circuit Court of Appeals and removed into the Supreme
74 Court of the United States, Do hereby command you that you send without delay to the said Supreme Court, as aforesaid, the record and proceedings in said cause, so that the said Supreme Court may act thereon as of right and according to law ought to be done.

Witness the Honorable Edward D. White, Chief Justice of the United States, the eleventh day of January, in the year of our Lord one thousand nine hundred and seventeen.

JAMES D. MAHER,
Clerk of the Supreme Court of the United States.

75 [Endorsed:] 1990. File No. 25614. Supreme Court of the United States. No. 784, October Term, 1916. Robert F. Werk et al., etc., vs. F. Thomas Parker et al., etc. Writ of Certiorari. Received Jan. 22, 1917. Saunders Lewis, Jr., Clerk.

76 Supreme Court of the United States.

No. 784, of October Term, 1916.

ROBERT F. WERK et al., Petitioners,

vs.

F. THOMAS PARKER et al., Respondents.

Stipulation.

It is stipulated and agreed, by and between counsel for the respective parties, that the certified transcript of the record which was

filed with the petition for the writ of certiorari in the foregoing cause, may be taken as a return to the said writ.

(Signed) T. HART ANDERSON,
Attorneys for Petitioner.

(Signed) FREDERICK S. DRAKE,
Attorneys for Respondents.

1/22/17.

Endorsed: No. 1990. Stipulation of Counsel. Received and filed Jan. 22, 1917. Saunders Lewis, Jr., Clerk.

77 UNITED STATES OF AMERICA,
Eastern District of Pennsylvania,
Third Judicial Circuit, set:

I, Saunders Lewis, Jr., Clerk of the United States Circuit Court of Appeals, for the Third Circuit, do hereby Certify the foregoing to be a true and faithful copy of the original stipulation of counsel as return to writ of certiorari in the case of Robert F. Werk, et al., Petitioners, vs. F. Thomas Parker, et al., Respondents, No. 1990, on file, and now remaining among the records of the said Court, in my office.

In Testimony Whereof, I have hereunto subscribed my name and affixed the seal of the said Court, at Philadelphia, this twenty-fifth day of January in the year of our Lord one thousand nine hundred and seventeen and of the Independence of the United States the one hundred and forty-first.

[Seal United States Circuit Court of Appeals, Third Circuit.]

SAUNDERS LEWIS, JR.,
Clerk of the U. S. Circuit Court of Appeals, Third Circuit.

78 [Endorsed:] File No. 25,614. Supreme Court U. S., October Term, 1916. Term No. 784. Robert F. Werk et al., etc., petitioner, vs. F. Thomas Parker et al., etc. Writ of certiorari and return. Filed January 26, 1917.

Supreme Court of the United States.

ROBERT F. WERK and ROBERT F. WERK and MRS. JOHN LEWIS KENNEDY, copartners, doing business under the name of ROBERT F. WERK & Co.,

Petitioners,

against

F. THOMAS PARKER and J. THOMAS ROBEY, copartners, doing business under the name of F. T. PARKER Co.,

Respondents.

No. [redacted]73

OCTOBER TERM, 1916.

PETITION FOR WRIT OF CERTIORARI AND BRIEF IN SUPPORT THEREOF.

T. HART ANDERSON,
Attorney for Petitioners.

C. G. BURGOYNE 72 to 76 Spring Street, New York.

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To the Supreme Court

OF THE UNITED STATES OF AMERICA.

ROBERT F. WERK, and ROBERT F. WERK and MRS. JOHN LEWIS KENNEDY, co-partners, doing business under the name of Robert F. Werk & Co.,
Petitioners,

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, co-partners, doing business under the name of F. T. Parker Co.,
Respondents.

No. 784.
October Term, 1916.

Petition for a Writ of Certiorari.

The said petiitoners respectfully show to this Court as follows :

FIRST : Your petitioners being respectively the owner of and licensee under Letters Patent of the United States No. 758,574, dated April 26, 1904, and No. 758,575, dated April 26, 1904, did on the 30th day of June, 1914, file their bill of

complaint in equity in the District Court of the United States for the Eastern District of Pennsylvania against the respondents charging the respondents with the infringement of each of said Letters Patent and praying for an injunction and an accounting for profits and damages.

SECOND: The respondents duly joined issue with your petitioners by their answer filed on the 22nd day of July, 1914, in which they denied the infringement of said Letters Patent and the validity thereof on the ground that the inventions therein patented lacked novelty and utility and averring "that the devices and ideas therein contained were in common use for many years prior to the applications for the grant of said patents", but without particularly specifying the names of parties alleged to have used such devices, or the places where and the time when used, as required by Section 4920 of the Revised Statutes.

THIRD: Thereafter the cause was called for trial on the 25th day of January, 1915, in the said District Court of the United States for the Eastern District of Pennsylvania before Hon. OLIVER B. DICKINSON, United States District Judge, and witnesses were examined in open Court as provided by the new equity rules, and on the 8th day of March, 1915, the said District Court of the United States for the Eastern District of Pennsylvania rendered its opinion ordering the bill of complaint to be dismissed, "because the defendant has not encroached upon any rights of the plaintiffs."

FOURTH: Thereafter and on the 1st day of May, 1915, a decree was entered in the said cause in which the finding was to the effect that "the defendants have not infringed Letters Patent of the United States Nos. 758574 and 758575," and ordering "that the bill of complaint be dismissed with costs to the defendants".

FIFTH: From the foregoing decree your petitioners duly filed their petition for appeal to the United States Circuit Court of Appeals for the Third Circuit, and also filed their assignment of errors, both the petition and the assignment of errors having been filed on the 4th day of June, 1915, and the appeal was duly allowed and presented the assignment of errors being as follows:

> "FIRST: The Court erred in finding that the patents in suit, Nos. 758,574 and 758,575, are invalid because of lack of invention in view of the prior art.
>
> "SECOND: The Court erred in finding that the defendant had not infringed Letters Patent of the United States Nos. 758,574 and 758,575, the patents here in suit.
>
> "THIRD: The Court erred in dismissing the Bill of Complaint.
>
> "FOURTH: The Court erred in not finding that the defendant had infringed the said Letters Patent Nos. 758,574 and 758,575.
>
> "FIFTH: The Court erred in not awarding to complainants an injunction and an account for profits and damages as prayed for in the Bill of Complaint."

SIXTH: Thereafter the record of the case in the United States District Court was duly prepared and printed in accordance with the rules in such cases made and provided and duly certified to the United States Circuit Court of Appeals for the Third Circuit and was in that Court called for argument and was argued by counsel for both parties.

SEVENTH: Thereafter the United States Circuit Court of Appeals for the Third Circuit rendered its opinion holding the patents invalid and this opinion was based on matters developed as the result of an independent investigation conducted by Judge BUFFINGTON for alleged prior publications, as will be hereinafter set forth and the said United States Circuit Court of Appeals for the Third Circuit declined to pass upon the question of

infringement which had been passed upon by the United States District Court for the Eastern District of Pennsylvania, the Appellate Court specifically stating, "This conclusion renders it unnecessary to discuss the question of infringement which the Court below decided in favor of the defendant."

EIGHTH: The alleged anticipatory publications referred to by the United States Circuit Court of Appeals for the Third Circuit were discovered as the result of inquiries "made by letter" as the following statement from the opinion of that Court shows:

> "The references above quoted were furnished by the Technical Department of the Carnegie Library of Pittsburgh, on request for publications showing the use of horse hair, prior to Werk's patents, in the extraction of vegetable oil. As the Court took judicial notice of the information thus disclosed by a highly specialized technical library, it was deemed fair to ascertain whether inquiry at libraries in other sections of the country would also disclose the prior use of horse hair mats in vegetable oil extraction. With that end in view, inquiry was made by letter of large public libraries, of the leading Universities in the East and several in the South and West, and from Colleges both East and West. The result, so far as pertinent citation goes, is given alphabetically below, such libraries not being listed where no books were cited."

See Page 8. Opinion of Appellate Court.

NINTH: The alleged publications developed by the Appellate Court and relied upon by that Court to invalidate the patents of your petitioners are printed at pages 8 to 17 of the opinion of the Appellate Court and were not pleaded by the respondents in the Court below and were not in any form before the United States District Court for the Eastern District of Pennsylvania and formed no part of the record which was certified by the said District Court to the

Appellate Court, and your petitioners never had an opportunity to discuss the relevancy of such publications to the matters at issue in the said District Court or in the Appellate Court.

TENTH: Thereafter your petitioners filed in the Appellate Court a petition for a rehearing on the 3rd day of May, 1916, but said rehearing was denied by the following order:

> "*Per Curiam:*
>
> And now, to-wit, May 23rd, 1916, after due consideration, the petition for rehearing in the above-entitled cause is hereby refused."

ELEVENTH: The questions and propositions of law involved in this case are substantially as follows:

1. Has the United States Circuit Court of Appeals for the Third Circuit wrongfully and unlawfully admitted evidence outside of the record before it of matters not occurring since the decree of the trial Court?

2. Has the United States Circuit Court of Appeals for the Third Circuit, by its action in so admitting and considering and basing this decision on matters foreign to the record in the trial Court and which had never been considered by the trial Court and which no opportunity was offered by the Appellate Court to counsel for the petitioners to show the immateriality of such matters to the question at issue, deprived your petitioners of their property rights in patents granted by the Government of the United States without due process of law?

3. Has the United States Circuit Court of Appeals for the Third Circuit unlawfully declined and refused to pass upon the question decided by the District Court and to base its own decision on matters entirely foreign to the record certified to it by the District Court, such matters being alleged to be

found in certain alleged publications the existence of which was not proven by competent evidence.

4. Do the disclosures of the alleged prior publications relied on by the United States Circuit Court of Appeals in fact show a lack of patentable novelty and invention in your petitioners' patents.

TWELFTH. And your petitioners further aver that the present case is one in which it is proper for the Court to issue a Writ of *Certiorari* for the following reasons :

1. Because an Appellate Court can receive no new evidence and can only avail itself of *authentic* evidence outside of the record before it of matters occurring *since* the *decree* of the trial Court.

2. Because the Appellate Court has offered no opportunity to petitioners to introduce evidence concerning the alleged anticipations.

3. Because the Appellate Court by its actions has denied to your petitioners the "due process of law" and has destroyed their property rights in Letters Patent on wholly irrelevant matter.

4. Because the public interests and the interests of jurisprudence require the decision of this Court on the questions of law involved herein.

WHEREFORE, your petitioners pray that this Honorable Court will be pleased to grant a Writ of *Certiorari* in this case to the Circuit Court of Appeals for the Third Circuit to bring up this case to this Honorable Court for such proceedings therein as to this Honorable Court may seem just.

ROBERT F. WERK,
MRS. JOHN L. KENNEDY,
ROBERT WERK & CO.

STATE OF LOUISIANA,
Parish of Orleans, } ss.:

ROBERT F. WERK, being duly sworn, says: I have read the foregoing petition. The same is true to my own knowledge, information and belief; my knowledge is derived from the record in this case and from what has taken place in my presence and hearing in Court in which this action has been heard.

ROBT. F. WERK.

Sworn to before me this
day of July, 1916.

R. A. TICHEM,
Notary Public.

[SEAL.]

I hereby certify that I have examined the foregoing petition and in my opinion the petition is well founded and that the case is one in which the prayer of the petitioners should be granted by this Court.

T. HART ANDERSON,
Of Counsel for Petitioners.

TO THE SUPREME COURT OF THE UNITED STATES OF AMERICA.

No. 784.

ROBERT F. WERK and ROBERT F. WERK and MRS. JOHN LEWIS KENNEDY, Co-partners, doing business under the of Robert F. Werk & Co.,

Petitioners,

v.

F. THOMAS PARKER and J. THOMAS ROBEY, Co-partners, doing business under the name of F. T. Parker Co.,

Respondents.

BRIEF ON PETITION FOR WRIT OF CERTIORARI.

In this case the petitioners charged the respondents with infringing Letters Patent of the United States, Nos. 758,574 and 758,575, Claim 1 of No. 758,574 being in issue and the single claim of No. 758,575.

The respondents in the District Court introduced evidence to show that there was no invention in the subject matter of the patents, and they also introduced evidence to show that the device made by them was not an infringement of the claims of the said patents.

The District Court dismissed the Bill of Complaint on the ground that there was no infringement.

The Appellate Court making an investigation by letter among various colleges and libraries developed numerous prior publications alleged to disclose the subject matter of petitioners' patents and *declining to pass upon the question of infringement which had been decided by the District Court,* took judicial notice of the citations which appear in the opinion of the Appellate Court and held that in view of these citations there was no validity in the petitioners' patents.

Petitioners asked for a re-hearing before the Appellate Court in order that the various citations developed by that Court might be considered and to show that Court that the alleged anticipations were absolutely irrelevant and immateral. The Appellate Court denied the petition for a re-hearing.

Argument.

The subject matter of the patent in suit relates to the use of hair for oil press mats, and the claims of the patent are drawn to cover such mats made of animal hair woven in a particular manner. The Court of Appeals took judicial notice of the alleged use of hair for making oil press mats antedating the date of the patents, and the mode of ascertainment adopted by the Court was the examination of a large number of publications dealing with the art.

It is conceded that, if the right to thus judicially notice the previous state of the oil press mat art was properly exercised, the Court might seek enlightenment by consulting standard works treating of the subject presumed to be one of common knowledge, and whatever data might be thus collected and applied in the disposition of the questions considered would not be subject to the rules of evidence, and no injury would be done to him who suffered a loss of property thereby. But if the action of the Court of Appeals in

this case amounts to an abuse of its discretionary powers, the petitioners, owners of the patents here in suit, have been deprived of their property rights without due process of law.

The decisions of this Honorable Court in patent cases where the invalidity of Letters Patent were declared on anticipatory matter of which the Court took judicial notice, afford no basis nor furnish any authority for the unwarranted extension of the doctrine as applied in the present suit. When invoked, the principle of judicial notice has been applied only to things *generally and widely known.*

It is contended that the materials of which oil press mats are made and the manner of weaving such materials constituting the subject matter of the claims of the patents in suit do not fall within the category of things commonly known, and the state of the art prior to the dates of invention of the oil press mats of the patents here before the Court is not therefore cognizable under the doctrine of judicial notice, and does not come within the purview of the established law laid down for the exercise of this power.

It follows then that the publications discovered by the independent investigations of the Court of Appeals were introduced in the defense on the suit in disregard of the petitioner's right under the statutes, to have notice of such publications before trial and the respondents' obligation to plead, authenticate and prove the dates of such alleged anticipatory matter, and in disregard of petitioners' right to discuss the relevancy thereof and whether such matter did in fact anticipate the claims of the patents and render them invalid.

POINTS OF LAW.

POINT I.

Judicial notice may be taken of matters of common knowledge.

Courts, both of original and appellate jurisdiction, have in patent cases exercised the power of judicially noticing things generally known and in common use as illustrative of the state of the art in adjudging the validity of the Letters Patent in suit, apart from any defense pleaded and proved; but the doctrine of judicial notice has been but sparingly and cautiously invoked in such cases, and when applied always confined to matters of such universal notoriety as to form part of the common stock of human knowledge.

See Brown v. Piper, 91 U. S., 37; 22 L. E., 200; Terhune v. Phillips, 9 Otto, 592; 25 L. E., 293; Black Diamond Coal Mining Co. v. Excelsior Coal Co., 156 U. S., 611; 39 L. E., 553; Slawson v. Railroad, 17 Otto, 649; 27 L. E., 576; King v. Gallum, 109 U. S., 99; 27 L. E., 870; Phillips v. Detroit, 111 U. S., 604; 28 L. E., 532; Heston P. B. F. Co. v. Schlochtmeyer, 29 F., 592; s. c., C. C. A., 72 F., 520.

Where the subject matter of alleged prior publications considered as affecting the validity of Letters Patent in suit is such as does not belong to that class of things in the common knowledge and use of the people generally throughout the country, there is no authority for taking judicial notice of such publications, and the pleadings and proofs being silent as to them, they may not be considered.

See Kaolatype Engraving Co. v. Hoke, 30 F., 444.

In this case the Court was asked, on the authority of Brown v. Piper and Slawson v. Railroad Co., to declare on demurrer

by a mere inspection of the patentees' claims, as set forth in the bill, that the claims disclosed no invention.

The Court said:

> "If facts exist of which the Court is bound to take judicial notice, and those facts clearly establish want of invention in the matter claimed by the complainants, undoubtedly we can declare the present patent void on demurrer, inasmuch as the patentee's description and claims form a part of the bill.
>
> * * * * * *
>
> "As the case has been presented, the question really before us is whether we may take judicial notice of certain processes described in various mechanical dictionaries, encyclopedias and other publications produced on the hearing of the demurrer, and by reason of our taking judicial cognizance of such processes determine that the patent in question does not describe an advance in the art to which it appertains rising to the dignity of an invention. Besides those facts of which Courts are bound by law to take judicial notice, they will ordinarily only take notice of facts of universal notoriety,—of facts that are so generally understood that they may be regarded as forming part of the common knowledge of every person. (See Brown v. Piper, *supra.*) The matters of which we are asked to take judicial cognizance in this instance, and thereupon declare the invalidity of this patent, do not strike us as falling within the last category. They are a class of facts which might more properly be called to our attention on the hearing (with opportunity to other side to rebut or explain), as tending to show the state of the art to which this patent appertains, and for the purpose of enabling us to determine whether this patent really describes a newly discovered process which called for an exercise of the inventive faculty."

This Honorable Court when considering a patent for a design for a rubber mat which had been declared to be in-

valid on demurrer, in reversing the decree of the lower Court, stated :

> " Whether or not the design is new is a question of fact which, whatever our impressions may be, we do not think it proper to determine by taking judicial notice of the various designs which may have come under our observation. It is a question which may and should be raised by answer and settled by proper proof."
>
> See New York Belting & Packing Co. v. New Jersey Car Spring Co., 137 U. S., 741.

POINT II.

Evidence supporting the defense of prior knowledge and use and prior printed publication and prior patent can only be considered when properly pleaded and proven and under the statutory notice.

No Court has the right to try and determine a question of fact concerning the validity of a patent of the United States on alleged prior publications without affording the patentee the fullest opportunity to introduce evidence concerning the relevancy of such prior publications, and demanding full proof of their alleged existence prior to the patents, where the right to take judicial notice of such publications does not exist.

Section 4920 of the Revised Statutes provides as follows :

> " In any action for infringement, the defendant may plead the general issue, and having given notice in writing to the plaintiff, or his attorney, thirty days be-

fore may prove on trial any one or more of the following subject matters.

* * * * * *

"THIRD: That it has been patented or described in some printed publication prior to his supposed invention or discovery thereof or more than two years prior to his application for a patent therefor.

* * * * * *

"And in notices as to proof of previous invention, knowledge or use of the thing patented, the defendant shall state the names of the patentees and the dates of their patents and when granted, and the names and residences of the persons alleged to have invented or to have had the prior knowledge of the thing patented, and where and by whom it had been used; and if any one or more of the subject matters alleged shall be found for the defendant, judgment shall be rendered for him with costs. And the like defenses may be pleaded in any suit in equity for relief against an alleged infringement and proofs of the same may be given upon like notice in the answer of the defendant and with like effect."

There was no notice by the respondent concerning the matters discovered by the Circuit Court of Appeals, and your petitioners were afforded no opportunity to discuss those matters or to introduce evidence to determine their relevancy and to rebut the proposition that they were anticipatory of your petitioners' patents.

The Circuit Court of Appeals based its decision on matter entirely foreign to the record which was certified to that Court by the District Court, and in fact neither reversed or affirmed the District Court on the only question which was carried to that Court by the appeal, namely, the question of infringement.

The Court of Appeals in its opinion specifically states:

> "This conclusion renders it unnecessary to discuss the question of infringement which the Court below decided in favor of the defendant."

The Inventions of Plaintiffs' Patents.

Briefly stated, the invention of the patents in suit may be said to involve:

FIRST. The use of long animal hair in the manufacture of an oil-press mat.

SECOND. The particular structural features of the woven fabric in which the warp-threads greatly exceed in number per square inch the weft-threads and are closely arranged to cover and protect the weft-threads, and as more specifically defined in the single claim of patent No. 758,575, the weft-threads being thicker than the warp-threads.

From the foregoing it will be observed at the outset that the question of invention does not involve merely the selection of material, but in addition to the selection of material there is specifically involved structural characteristics, and so far as this record shows, an oil-press mat made of the material and having such structural characteristics was absolutely novel.

Abstracts from the Opinion of the District Court.

The learned Judge of the District Court states as follows:

> "So far as the evidence in this case discloses the mats known to the prior art were made of camels' hair. From the results of the use of camels' hair mats sprang the demand for something better. The camels' hair of which the mats were made is a mixture of hair and wool."

He further states:

> "We have then as the state of the prior art the use of a mat made of camels' hair and woven in the old and commonly known methods of the weaver."
>
> Opinion, Record, Pages 33 and 34.

Concerning the state of the art, the patentee states :

> " The highest grade of mat now in general use is made from camels' hair."
>
> Record, page 31, lines 14 and 15.

No evidence was offered by the defendant to show any different state of the art than is here stated.

The Court further states :

> " The design embraces two meritorious features, one is in making use of the differential qualities of animal wool and animal hair with respect to their felting characteristics.
>
> " The other is in the use made of the material when selected."
>
> Opinion, Record, page 37.

Concerning this latter the Court states as follows :

> " The use of woof and web and all possible variations in the length and in the mode of applying the fibres or threads in the process of weaving are old. The evidence for the defendant to be directed to the other features of the claimed invention is very meagre. It may indeed be said to be absent."
>
> Opinion, Record, pages 37 and 38.

> " The patentee in this case claims the merit of having discovered that he could, by using a different material from that which was known in the art of mat-making, and by having the fibres or threads of this material woven in the usual way of warp and weft threads, but having the weft-threads composed of soft and pliable fibre and less in number than the warp-threads, and in addition having the weft-threads thicker than the warp-threads, overcome the deficiencies of the mats then in use."
>
> Opinion, Record, page 34.

The Defendants' Oil-Press Mat.

The defendants' oil-press mat, "Complainants' Exhibit No. 2", is made of human hair.

Ritchie, Record, page 10, and Cohen, Record, page 17.

In the defendants' oil-press mat, "Complainants' Exhibit No. 2", the weft-threads are soft and pliable hair, and the warp-threads exceed the weft-threads in number two to one per square inch.

France, Record, page 21.

Mr. France further testified that in "Complainants' Exhibit No. 2, Defendants' Oil-Press Mat", the weft-threads were made up wholly of relatively soft and pliable hair and are about one-tenth larger in diameter than the warp-threads.

Record, pages 21 and 22.

Concerning the defendants' oil-press mat, Robert F. Werk testified that there were twelve warp-threads to the inch and four weft-threads, and that the warp-threads are arranged in relatively close proximity and cover the weft-threads completely.

Werk, Record, page 23.

From the foregoing it appears that the defendants' oil-press mats are structually exactly like the oil-press mats defined in the patents in suit, but that instead of being made of hair derived from the tails and manes of quadruped animals, such as horses and cows, they are made of hair derived from the heads of biped human animals, namely, hair from the heads of Chinamen.

Human hair in oil-press mats is the full equivalent of other animal hair such as set forth in the patents. On this

point Mr. Ritchie testified that an oil-press mat made of hair from the head of a Chinaman, or other human hair, would have the same elasticity and strength and flexibility as hair from the manes and tails of animals, and he further testified that so far as the drainage properties of an oil-press mat are concerned an oil-press mat made of human hair would be the same as an oil-press mat made of hair from the manes and tails of animals.

(Ritchie, Record, Page 11.)

On this point the Court very properly found :

> " The mat as manufactured and sold by the defendant answers to all the features of the plaintiff's patent except that the material there used is human hair."
>
> (Opinion, Record, Page 35.)

> " Tested by these principles we have here an identity of results. * * *
>
> " This comparison discloses a further identity of means except only in the variation of the use of human hair as distinguished from the hair of animals. The substituted material produces the same result. It is used as a means operating in precisely the same way. There is therefore an identity both with respect to the final purpose and the means of accomplishing the desired result."
>
> Opinion, Record, Pages 36 and 37.

Comparative Results.

> " The mat which he produced was an improvement upon the old mat in several respects or features. One was that it was more efficient in that with its use all the oil could be extracted from the material and thus loss saved. Another was that what might be called the longitudinal strength of the mat was increased with the resultant saving due to the mat lasting for a much longer time than the old mat. The third was that the

improved mat could be produced at a much less cost than the old camels' hair mat."

Opinion, Record, Page 34.

"These results were accomplished by making the mat entirely of long animal hair, the fibres or threads of which as used in the warp of the woven cloth exceeded in number those used in the weft, and the weft-threads being exclusively of soft, pliable hair, or by having the mat woven of fibres or threads of long but soft and pliable hair obtained from the tails and manes of animals, and so selected that the weft-threads will be thicker than the warp-threads and so woven that the warp-threads would exceed in number the weft-threads. As would be expected the grand result was, according to the evidence, that the new mat superseded the old."

Opinion, Record, Pages 34 and 35.

The evidence on this point is clear and uncontradicted.

John E. Kaiser, a mill superintendent, with sixteen years' experience in oil mills, after describing the process of extracting oil from cotton seed and pointing out that the oil-press mats with their enclosed cotton seed pulp are subjected to a pressure of 3,800 to 4,000 pounds to the square inch, testified that the "Complainants' Exhibit No. 7" showed a sample of the old camels' hair oil-press mat such as the witness had used for a period of seven to ten years. He stated in substance:

"An oil-press mat made of camels' hair would not last over five days; that was the best result ever obtained by me with a mat made of camels' hair."

Record, Pages 13 and 14.

He explained that in order to get the oil out of the cotton seed they put in as much water as was possible; but if they put in too much water when using camels' hair oil-press mats they will burst at the folded ends, and that when they burst

they have to be cut and patched, and that such oil-press mats *never lasted over five days.*

Record, Top of Page 14.

The witness further testified that hair oil-press mats such as he obtained from the complainants and like the defendants' infringing oil-press mat, *they could use for twenty days.*

Record, page 14.

As Compared to Oil-Press Mats Made of Camels' Hair, the Complainants' Oil-Press Mats Have an Advantage of Fifteen Days in Their Useful Existence.

Mr. Kaiser further testified that a camels' hair oil-press mat, because it clogs up and gets a skin on it, or a scum, there is difficulty in getting the oil through the mat and it is difficult to strip the oil cake from the mat or the mat from the oil cake, and that they have to use a machine to separate the mat from the oil cake. He states that "Complainants' Exhibit No. 7" shows a fair sample of camels' hair oil-press mat after it has been used; that for a short while the oil will go through it; in about twenty-four hours or thirty-six hours it gets in the condition shown by the "Complainants' Exhibit No. 7."

> "In the use of oil-press mats made of hair, the mat does not cake up, and the oil goes through freely, and there is no difficulty in stripping the oil-press mat made of hair from the oil cake, but with camels' hair they have to use a machine to get it off."
>
> Kaiser, Record, page 14.

This testimony shows the improvements in the function as between complainant's patented oil-press mats and the oil-press mats of the prior art.

Improved Results.

Mr. Kaiser testified that he had made tests to determine how much oil is left in the oil cake while using came's' hair oil-press mats, and the lowest percentage of oil ever found in the cake when using camels' hair mats was 6.04, which indicated that there was 6.04 per cent. of oil remaining in the cake, and consequently lost when using camels' hair mats; that the average oil remaining in the cake when using camels' hair mats was 7.5 per cent.

> " With oil-press mats like complainants' hair mats the best reports indicated that there was 4.64 per cent. of oil remaining in the cake and that the average was 5.92 per cent."
>
> Record, Pages 14 and 15.

It thus appears that in addition to lasting four times as long as camels' hair oil-press mats there is a resulting saving of oil, owing to the fact that the complainants' oil-press mats do not clog up.

Saving in Cost.

According to Mr. Kaiser, the cost of camels' hair oil-press mats average 18 cents per ton of seed pressed, whereas with hair mats they cost 10 per ton of seed.

Record, Page 15.

From the foregoing it will be seen that the patented oil-press mats, in addition to being new so far as the material from which they are constructed is concerned, and as an oil-press mat, new in their structural characteristics, but that the results accomplished show an extended life,

an improved functioning and a material saving not only in the oil extracted but in the cost of the mats compared with the tonnage of seed operated upon.

The Law in the Case.

Given a new structure differing from the prior art in the material of which it is made and in its structural characteristics, and one which as compared with the prior art operates in a better manner, lasts four times as long, costs much less to use and effects a considerable saving in the product upon which it operates, and has superseded all others, it is submitted that all these points must be considered in the aggregate, and it is unfair to consider such a device first as involving a mere change in material, and second as involving a mere old form of weaving.

> Celluloid Manufacturing Company v. Chemical Company, 36 F. R., 110; King v. Anderson, 90 F. R., 500).

The District Court states:

> "The substitution of one material for another by bringing in a new quality may result in gain."

And he adds:

> "It did so here."
> Opinion, Record, Page 38.

> "We feel the strength of the appeal which lies in the fact that the claims of the plaintiffs are based upon at least undoubted commercial novelty and utility."
> Opinion, Record, Page 34.

> "That the plaintiffs' make of mats possessed commercial novelty and value is beyond denial."
> Opinion, Record, Page 37.

> "As would be expected the grand result was according to the evidence, that the new mat superseded the old."
>
> Opinion, Record, Page 35.

At the trial and at the close of the argument the District Court was doubtless impressed that the plaintiffs must prevail, for in the opinion he states :

> "At the trial of the case, we were strongly impressed with the thought that the defendant had failed to meet the plaintiffs' *prima facie* case and that in consequence the plaintiffs must prevail."
>
> Opinion, Record, Page 38.

Apparently, however, when the Court proceeded to prepare its opinion the learned Judge in treating the question of patentability applies to the patents the *demurrer* test, for he states :

> "The test of the plaintiffs' case is therefore the demurrer test. Put into a nutshell the question is this : Is invention involved in making use of a known quality inherent in some materials ? "
>
> Opinion, Record, Page 38.

The demurrer test in the light of the evidence which shows a new structure, a new mode of operation, a new function and new results, it is submitted is an unfair test.

The New State of the Art is Discovered by the Appellate Court.

Bear in mind that the subject matter of the petitioners' patents involve not only the use of a certain material, namely, animal hair as distinguished from wool, and as distinguished from camels' hair, which is largely wool ; but also new structural characteristics consisting of a particular arrangement as to

relative number of the warp, and weft threads, and of their relative size and texture, we will now take up and analyze the various citations relied on by the Court of Appeals.

The first of these is alleged to be found in the Engineering Magazine of September, 1892, in an article by I. W. Thompson entitled "The Cotton Seed Oil Industry," and the Court of Appeals quotes the following:

> "The earliest form of hydraulic press used in oil mills was vertical containing five bags of compartments about 9 x 20 inches for receiving the prepared kernels, which were in bags and enclosed still further in *horse hair* 'mats' or 'bags.'"

It is to be noted that there is nothing said in this extract concerning the relative size or numbers of the warp and weft threads. In fact nothing to indicate that the alleged horse hair mats were woven mats.

It is to be further noted that apparently the kernels from which the oil is extracted do not come in contact with the mats, for there is the statement that they are in bags which are enclosed in mats.

In the petitioners' patents the structure is clearly defined as being one in which the warp threads greatly exceed the weft threads in number per square inch, and also the weft threads are thicker than the warp threads.

The second citation relied on by the Court of Appeals is alleged to be found in the Popular Science Monthly for May, 1894, and is as follows:

> "The kernels are then pressed in woolen bags packed between horse hair mats backed with leather and having a fluted surface inside to allow the oil to escape more freely."

This is open to the same criticism, namely, that the structural characteristics of the horse hair mats are not to be found, and it is to be further noted that the kernels are en-

closed in woolen bags and do not come in contact with the horse hair mats, and that the latter are backed up with leather. It would have been an easy matter to have differentiated the subject matter of petitioners' patents from anything set forth in this alleged anticipation.

The third extract relied upon by the Court of Appeals is alleged to be found in a publication from the United States Department of Commerce, Bureau of Foreign and Domestic Commerce, Special Agents' Series, No. 84, Part I., 1914, Page 69, and is as follows :

> " The Netherlands ; oil mill methods. Most of the Dutch oil mills were built for linseed, and the original plan for linseed is followed for such other crushing as is done. * * * They (the cakes) were made by pouring the hot meats into woolen bags and *pressing between horse-hair mats, just as cotton-seed cake was made in the United States at one time.*"

As to this extract, it will be noted that the publication is dated 1914, whereas petitioners' patents are dated 1904, and that it refers to a use in a foreign country which does not affect the validity of a patent in the United States, and it is to be further noted that the structural characteristics of the alleged horse-hair mats are not described, and further that the meats are enclosed in woolen bags and do not come in contact with the mats.

The fourth extract referred to by the Court of Appeals is one cited by Bowdoin College alleged to be from British Encyclopedia, Vol. II., Page 376 of 1880, and is as follows :

> " *Horse hair* is woven into bags for oil and cider presses."

This is certainly a very meagre description of an anticipatory structure. Nothing is stated as to the construction of the horse-hair bags nor how they are used.

The Court of Appeals next quotes a citation from " A

Practical Treatise on Animal and Vegetable Fats and Oils", 1888, W. T. Brannt, alleged to be be found in the Library of the Department of Agriculture, Washington. D. C., which is as follows :

> "The bags of strong woolen stuff, when full, are pressed flat between *horse hair* mats and then brought into the press " (page 102).
>
> " Before placing the heated seed-meal in the press, it is put in woolen cloths or *horse-hair bags* " (page 107).
>
> "After the oil is expressed * * * the *horse hair mats* are taken out and the press cake removed from the bag " (page 116).
>
> " (For press-cloths) ' The most suitable materials are cotton, sheep's wool, *and horse-hair* ' " (page 147.)

With one type of machine described, the seed-meal is wrapped in woolen cloths and pressed without mats.

> "The advantages of this machine are as follows :
>
> "1. The expensive hairs are done away with.
>
> "2. Each press instead of four cakes * * * can now accommodate eighteen on account of the slight thickness of the cakes themselves * * * and the absence of *the* hairs " (page 120).

It is to be noted that the " horse hair mats " and " horse hair bags " are not structurally described, so that it cannot be determined whether they are structurally like those of petitioners' patents, and further that whatever they may be they are used with woolen cloths and that the seed-mea l do not come in contact with the horse hair mats.

The Court of Appeals next cites an abstract alleged to be found in Spons' Encyclopedia of the Industrial Arts, Manufactures and Raw Commercial Products, 1882, and quotes as follows :

> " In all these presses *the hair* wrappers, weighing some 26 lb. used in the old processes, are dispensed with " (Page 1453).

It will be noted that, whatever these hair wrappers may be, the extract does not show that they are the hair wrappers or hair mats of petitioners' patents—in short, so far as the character of the hair is concerned, or the structure of the mats is concerned, nothing is said.

The Court of Appeals next refers to Andes' Vegetable Fats and Oils, London, 1897, from which it makes the following quotation:

> " These presses are arranged as follows: Four, six, eight or ten wrought iron or steel rings are erected one above another in the press, each of them having a movable bottom of steel pierced with fine holes, and between every two rings a cast iron or cast steel plate is laid, the upper side of which is grooved, but the under side smooth. To these plates, which are inserted between the columns of the press, are attached iron rails in which the press rings are suspended, and serve as guides for the insertion and withdrawal of the latter. In addition to this, each plate is surrounded by a channel for catching the expressed oil. The filling of the press is a simple operation. On the perforated bottom of each ring is laid a cover of *plaited horse hair*, wool or felt, on which the meal is spread and covered with a *horse hair* cloth. When the rings are all filled, pressure is applied, forcing the grooved upper surface of each plate into the ring above, and thereby causing the oil to flow out *through the horse hair cloth*, and perforated steel plate and the grooves of the press plate, into the oil channel." (Page 71). " * * * The cleaned seeds are passed into a rotary cylinder containing 24 circular fixed knives and the equal number of cutters, which divide the seed into very small pieces. The hulls are thus separated from the kernels, and form a valued food for cattle. The kernels are pressed between rollers like those in a cane sugar mill, and the oil runs out. The mass is then put into woolen press bags, laid between *horsehair cloths* covered with ruffled leather to enable the oil to flow more freely, and submitted to hydraulic

> pressure. The bags are exposed to warm pressing for 17 minutes, a time sufficient to force out all the oil, which collects in a channel, leaving only the dry kernels behind. These constitute the oil-cake of commerce." (Page 112).

It will be noted that all that can be determined from this extract is that horsehair cloth was used, but that the structural characteristics of this horsehair cloth are not set forth. Therefore it cannot be determined that this is anticipatory of of petitioners' patented oil press mats having certain structural characteristic.

The Court of Appeals next cites Brannt's " A Practical Treatise On Animal and Vegetable Fats and Oils," Philadelphia, 1806, Vol. I, Chapter X, " Manner of Obtaining Fixed Oils " (quoted in opinion and cited by Carnegie Library, Pittsburgh) which it quotes in its opinion at Page 8 as follows :

> " The material, in the manufacture of press cloths and bags should be capable of great resistance, and while close enough to prevent any meal from penetrating to allow the oil to run out as freely as possible ; properties not readily found combined in any one material. The most suitable materials are cotton, sheep's wool and horsehair."

This does not disclose the structural characteristics of the oil press mats of your petitioners.

The Court of Appeals next refers to " Cotton Seed and Its Products," No. 36, published by the United States Department of Agriculture in 1896, and from which it quotes as follows :

> " The cakes as they come from the (cake) former are wrapped *in haircloth* and removed by hand to the press, where they are arranged in a series of boxes, one above the other, between the plates of the

press and subjected to a pressure of three thousand to four thousand pounds to the square inch by hydraulic power."

Nothing is to be found in this citation showing the structural characteristics of the haircloth, or that they are the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next refers to the "Scientific American Supplement," No. 830 of November 28, 1891, an article by D. A. Tompkins, describing English mills and the following quotation is cited:

> "The process of working them was very simple. They are first crushed under old fashioned milling stones, then put in steam jacketed kettles with mechanism stirrers and cooked. The product was dumped from the kettles or heater into a wooden bin, and from the bin it was dumped into small cloth sacks, these being in turn enclosed in a hair mat. The whole was put into a hydraulic press containing about five boxes and put under about two or three thousand pounds pressure to the square inch, ten to twelve inches in diameter."

In this extract and the one immediately preceding, there is nothing to show that the haircloth or hair mat was made of horsehair, or that it had the structural characteristics of the oil press mats of petitioners' patents.

It is to be further noted that the seed or other material is first put into cloth sacks and does not come in contact with the hair mats.

The next citation by the Court of Appeals is alleged to be found in the Encyclopedia Britannica, 9th Ed., 1894, Vol. 17, p. 742, in an article on "Oils," and it quotes the following:

> "Measured quantities of the meal are filled into woolen bags * * * each bag is placed within

> 'hairs,' thick mats of horse hair bound with leather. In some methods of working, press-cloths—not bags—are used; and the construction of recent presses is such as to dispense altogether with the use of bags or other coverings."

Here again we fail to find any description of the structural characteristics of the mats made of hair or the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites an article on "Waste Products; Cotton Seed Oil," Vol. 45, "Popular Science Monthly," p. 107, March, 1894, as follows:

> "The kernels are conveyed to rollers where they are crushed very fine. They are thence removed to the heaters * * * then placed in woolen bags, packed between horsehair mats, backed with leather and having a fluted surface inside to allow the oil to escape more freely."

There is nothing to show how these horsehair mats were made, or that they had the structural characteristics of the oil press mats of petitioners' patents. Whatever they were they were backed with leather having a fluted surface and therefore structurally different from petitioners' oil press mats.

The Court of Appeals next cites the Encyclopedia of Chemistry, J. B. Lippincott & Co., 1879, and quotes the following:

> "The bags, after being filled, are placed separately between what are called the 'hairs,' which are bags made of horsehair, with an internal covering of leather. The same description of bags and horsehair are used, whether the oil be expressed by means of the stamper, screw or hydraulic press. Several different kinds of presses are used in the extraction of oils, as the screw press, the wedge press and the hydraulic press."

These bags made of horsehair and covered with leather are certainly not the oil press mats of petitioners' patents. At least the structural characteristics to be found in the patents are not to be found in this brief extract from the Encyclopedia of Chemistry.

The Court of Appeals next refers to Ure's Dictionary of Arts, etc., Longman, Green & Company, 1881, as showing the use of horsehair envelopes in hydraulic oil presses, and that the oil passes through wooden bags and horsehair mats, and as showing the use of hair-cloth and hair-bags, and quotes the following:

> "The hot meal is then placed between the sides of wrappers formed of thickly woven horsehair backed with corrugated leather to facilitate the escape of the oil, which are called 'hairs' or 'books'. The hair and its continued bag or seed are then placed in the hydraulic press."

Nothing in this citation shows the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites the "Engineering Magazine", Vol. 318; 1892, p. 826, and quotes the following:

> "The earliest form of hydraulic press used in oil mills was vertical containing five boxes or compartments, about 9 x 20 inches, for receiving the prepared kernels which were in bags and enclosed still further in horsehair mats or 'books'. * * * The next step was in substituting steel for horsehair mats, whereby the space occupied was so reduced in thickness that two bags might be placed in one box, doubling the capacity of each press."

This shows that while horsehair mats were used, it does not appear that such horsehair mats had the structural characteristics of petitioners' patents, and further, that the kernels from which the oil was to be extracted were first placed in bags and did not come in contact with the horsehair mats.

The Court of Appeals next refers to Lamborn's "Cotton Products", published in 1904, and quotes the following:

> "The modern plate press * * * has almost entirely superseded the old style box press, owing to its greater capacity * * * both in operation and use of mats and bags. With the box press the cooked meats were placed in woolen bags and these spread out and equalized in thickness on 'mats.' These mats were closely *woven from horsehair* and covered, etc."

There is nothing in this extract to show that these horsehair mats whatever they were embodied the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next refers to "Vegetabilische Fette und Oele" * * * Wein; A. Hartleben, 1896, pages 65 and 66, and quotes and translates the quotation as follows:

> "It is really impossible to have the two demanded qualities united in one and the same texture; a very closely woven cotton material answers this purpose the best and therefore in order to prevent the bursting of the pressed bags one places around these during the process of pressing a close texture woven out of horsehair."

Nothing in this citation shows the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next refers to "Handbuch der chemischen Techbologie," Otto Dammer, and translates the following quotation:

> "Before pressing, the shredded seed is put into bags or packed in woolen cloths, which must resist the great pressure, without soaking in much oil. Later you wrap them into a material woven from horsehair."

There is nothing in this citation to show that the material woven from horsehair has the peculiar structural characteristeristics of petitioners' patents.

The Court of Appeals next refers to "Theoretischpractisches Handbuch der Oelfabrication und Oelreinigung * * * Weimar; Voigt, 1853, pp. 46, 47, from which it makes the following translation:

> "In the German way of packing they use cloths of five or six ply horsehair similar to a girth."

You cannot find the structural characteristics of the oil press mats of petitioners' patent in this citation.

The Court of Appeals next cites "Soaps" by George H. Hurst, London, 1898, p. 84, and quotes the following:

> "The bags are next enclosed in woolen covers, and are then wrapped again in what are called 'hairs,' which are strong cloths made of horsehair."

All that can be gathered from this citation is that horsehair cloths are used, but certainly it cannot be found that oil press mats having the peculiar characteristics of petitioners' patented mats were used.

The Court of Appeals next refers to "Chemistry" by C. W. Vincent, Vol. 2, of 1882, pp. 456 and 457, and quotes the following:

> "The crushed cake is enclosed in a press cloth or bag previous to its introduction into the case. The bags and cloths used for this purpose are made of different materials, the object being to have them sufficiently strong to bear the force exerted, while at the same time they are not so thick or porous as to retain any great quantity of liquid. Woolen cloth and canvas are especially manufactured with a view to its application to this process of expression. The bags after being filled are placed separately between what are called the 'hairs' which are bags made of horsehair, with an external covering of leather. The same description of bags and hairs are used whether the oil be expressed by means of the stamper, screw or hydraulic press."

There is nothing in this citation to show the structural characteristics of the oil press mats of petitioners' patents, and further it is to be noted that they are used in connection with bags and a leather backing or covering.

The next citation is from "Animal and Vegetable Fixed Oils, Fats, Butters and Waxes," C. R. A. Wright, 2nd Ed., London, 1903, p. 262, from which the following quotation is made :

> "In some of the Marseilles oil factories an arrangement is in use known as the 'Estrayer Cylinder,' the action of which is somewhat akin to that of the wedge press. The apparatus consists of two cylinders, one inside the other, of which the outer acts upon the inner by means of a series of inclined planes, the inner cylinder being composed of eight segments which either close up tightly or separate according as pressure is exercised or removed by the position of the outer cylinder. Screens made of esparto grass and horsehair are employed instead of oil-bags of the same material (scourtins) such as are employed in other forms of press."

Certainly this horsehair screen referred to cannot be said to possess the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites Ure's Dictionary of Arts, Vol. 2, p. 286, Appleton & Co., 1863, and quotes as follows :

> "Linseed, rapeseed, poppyseed, and other oleiferous seeds were formerly treated for the extraction of their oil, by pounding in hard wooden mortars with pestles shod with iron, set in motion by cams driven by a shaft turned with horse or water power, then the triturated seed was put into woolen bags which were wrapped up in hair-cloths, and squeezed between upright wedges in press boxes by the impulsion of vertical rams driven also by a cam mechanism."

There is nothing in this extract to show that horsehair was used, or that the hair-cloth had the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites the Farmers' Bulletin, No. 36, page 7, "Methods of Manufacturing Cotton Seed Products" and quotes the following:

> "After this crushing the meats drop into a conveyor, which delivers them to the heaters. * * * The object of the cooking is to expand the oil into the meats and render it more fluid and to drive off the water which not only reduces the quality of the oil but is liable to work serious injury to the expensive cloths used to envelope the cakes in the press * * * Close to the heaters stands the 'former' which shapes the meats into cakes for the press. The cakes as they come from the former are wrapped in hair-cloth and removed by hand to the press."

Here again we have reference to hair-cloth, not horsehair, and we cannot find any description which would show that this hair-cloth had the characteristic structural features of the oil press mats of petitioners' patents.

The Court of Appeals next cites a French publication entitled "Traitè Complet De Mecanique Appliquee aux Arts, Etc.", Vol. 5, p. 268, Paris, 1819, from which it makes the following translated extract:

> "I order to make these sacks, one can use weaves of hair, sackcloth made of hemp twine, ticking of heavy strong cloth, linen materials, weaves of seaweed or an earthly mineral of a shining lustre; the hair is preferable because it does not absorb the oil, because the meshes of its tissues do not touch each other easily, through its lastingness, its resistance to the force of pressure, finally through the ease with which one can clean it."

Certainly there is nothing in this citation to show the use of horsehair in making an oil press mat, nor to show the struc-

tural characteristics of the oil press mats of petitioners' patents.

The next citation in the opinion of the Court of Appeals is alleged to have been taken from Ree's Cyclopedia of Arts, London, 1819, and is as follows :

> " Olive and other vegetable oils, the products of the south of Europe, are also expressed by a machine, but it is not called a mill, being simply a strong screw-press, provided with a windlass or capstan, to give it a greater power ; in short, it is the same machine as the Cyder Press. The olives are first pounded, or bruised, either in a large mortar, or by a running stone, in the same manner as the apples for making cyder. The pulp thus produced is put up in bags made of horse hair, and a pile of these being made up under the press, the screw is forced down by men working a long lever, and the oil expressed."

There is nothing in this citation to show the structural characteristics of the horsehair bags referred to, nor that they had the same structural characteristics as the oil-press mats of petitioners' patents.

The next citation is alleged to be found in Ure's Dictionary, 3d London Ed., 1833, page 900, and is as follows :

> " The pressed cake is again thrown under the edge stones, and after being ground the second time should be exposed to a heat of 212 degrees Fahrenheit, in a proper pan, called the steam kettle, before being subjected to the second and final pressure in the woolen bags and hair cloths."

There is nothing in this citation to show the character of hair used in manufacturing the hair cloths, or that they were manufactured with the structural characteristics set forth in petitioners' patents.

The next citation to be found in the opinion of the Appel-

late Court is alleged to be found in the English Encyclopedia by Knight, Vol. 6, p. 26, London, 1861, and is quoted as follows:

> "In the wedge-press, of which there are many varieties, the crushed seeds are put into bags of hair-cloth, or some similar material, and these bags are then placed between boards or blocks of wood within a very strong and massive framework. The small end of the wedge is then introduced in such a way between the plates or the boards that, when it is driven down by the blows of a ram or pestle, it may compress the bags with enormous force. * * * Some of these act horizontally, the bags being, as in the wedge-press, placed vertically and separated from one another by cast-iron plates; but in others the bags are piled upon one another in cast-iron cases and placed in a vertical press. The seed is put into bags of flannel or horse-hair. Among other advantages it is stated that the hydraulic or hydrostatic press requires less space than a stamping mill which could do the same work, and that the hairs and bags are found to last longer with it than with the old machine."

While horsehair is mentioned in this citation and bags of hair cloth, there is nothing to show how they were woven, or that they had the structural characteristics of petitioners' patents.

The Court of Appeals next refers to Meyer's Konversations, Lexikon, Leipsig, 1906, Vol. 15, p. 53, from which it takes the following quotation:

> "In pressing one wraps the seed flour in heavy woolen cloths or puts it in bags and covers these with a layer of horse hair."

There is nothing in this citation to show that the horse hair is woven at all, and certainly nothing to

show that the fabric produced has the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next relies on an alleged quotation from Pliny, which is translated as follows :

> " The Gauls have invented a kind of sieves made out of horse hair, the Spaniards bolting cloths and meal-sieves made out of flax, Egypt made out of papyrus and rushes."

Certainly this is a meagre description of an anticipatory reference for the oil press mats of petitioners' patents.

The Court of Appeals next refers to the Techno-Chemical Receipt Book, by Brannt and Hall, 1886, and also Pitman's Common Commodities of Commerce ; Oil. By MITCHELL, quoting as follows :

> " The kernels, technically known as the ' meats ', are now ready for crushing between iron rollers, after which process they are heated in steam jacketed kettles and shaped into cakes in a press termed the ' former.' These cakes are wrapped in hair cloths and subjected in hydraulic presses to a pressure of 3,000 to 40,000 pounds to the square inch."

There is nothing in this citation to show what kind of hair was used in the hair cloth referred to, nor how it was constructed, and certainly nothing which can be regarded as an anticipation of petitioners' patents.

The Court of Appeals closes the section of its opinion devoted to these citations with the following statement:

" From the foregoing summaries it will be seen that the Court was fully justified in taking judicial notice of the use of horse hair in the extraction of vegetable oils prior to Werk's patents, and that inquiry at the libraries listed would, with a very few exceptions, have disclosed the use of horse hair mats or bags as a common agency in vegetable oil extraction."

This closing paragraph of the Appellate Court is significant as indicating the manner in which they approach the consideration of the case which was before them and apparently it regarded the patents of petitioners as being directed to the use of horse hair for camel's hair in a structure otherwise old. In other words, that the invention of petitioners' patents resided in the use of horse hair only, and this notwithstanding that the evidence showed that the structural characteristics set forth in petitioners' patents embodying the relative difference in number of threads in the warp and woof, and the relative difference in size of such threads and the relative characteristic texture between the warp and woof threads which the defendant utterly failed to show was entirely disregarded by the Appellate Court.

Conclusion.

In conclusion, it is submitted that the Court of Appeals was in error when it assumes to take judicial notice of citations alleged to be found in certain publications, and that it was proper for it to judicially notice only those things of common and general knowledge.

It is further submitted that proof of these publications and the citations relied upon by the Court of Appeals and their relevancy to the subject matter of petitioners' patents, inasmuch as they are matters of which the Court was barred from judicially noticing, should not have been admitted without the statutory notice required of the respondents.

And it is further submitted that a careful consideration of all the citations fails to show that they are sufficient to negative the presence of invention in the oil press mats of petitioners' patents.

This Honorable Court, therefore, should grant this petition

and order this case before it in order that petitioners may have their day in Court, and that this wrongful act of the Court of Appeals may be properly reviewed and considered.

Respectfully submitted,

T. HART ANDERSON,
Attorney for Petitioners.

Dated New York, N. Y., November 21, 1916.

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No. 73

IN THE

Supreme Court of the United States.

October Term, 1917.

ROBERT F. WERK and ROBERT F. WERK and MRS. JOHN LEWIS KENNEDY, doing business under the name of ROBERT F. WERK & CO.,

Petitioners,

vs.

F. THOMAS PARKER and J. THOMAS ROBER, copartners, doing business under the name of F. T. PARKER CO.,

Respondents.

Brief on behalf of Petitioners.

T. HART ANDERSON,
Of Counsel for Petitioners.

Supreme Court of the United States.

OCTOBER TERM, 1917.

ROBERT F. WERK and ROBERT F. WERK and MRS. JOHN LEWIS KENNEDY, doing business under the name of ROBERT F. WERK & CO.

Petitioners,

against

F. THOMAS PARKER and J. THOMAS ROBEY, copartners doing business under the name of F. T. PARKER CO.

Respondents.

No. 322.

BRIEF ON BEHALF OF PETITIONERS.

MAY IT PLEASE THE COURT:

Petitioners are respectively the owner of, and licensee under Letters Patent of the United States No. 758,574, dated April 26, 1904, and No. 758,575, dated April 26, 1904.

On the 30th day of June, 1914, petitioners filed their bill of complaint in Equity in the District Court of the United States for the Eastern District of Pennsylvania, against the respondents, charging them with the infringement of claim 1, of patent No. 758,574, and the only claim of patent No. 758,575, and praying for an injunction and an accounting for profits and damages.

On the 22nd of July, 1914, issue was joined by the answer of the respondents, in which they deny infringement of the Letters Patent and the validity thereof as follows:

> "5. The defendants, besides denying that they are manufacturing or having manufactured oil press mats which are an infringement of the patents granted to the plaintiffs and referred to in their bill of complaint, also suggest and hereby expressly deny and raise an issue as to the patentability of the said purported patented ideas and the privileges appertaining thereto, denying their novelty and utility. The defendants aver that the devices and ideas therein contained were in common use for many years prior to the application for and grant of the said patents."
>
> (Record, page 6.)

Not a single patent or prior printed publication, nor any specific instance of prior knowledge and use, was set up in the respondents' answer.

At the trial the respondents introduced no evidence of any alleged prior or "common use", nor any prior patents or printed publications, but confined themselves to an attempt to show that the method of *wearing* embodied in the patented device was old, and that their own device in which human hair was used, and not horse hair, was not an infringement.

The District Court dismissed the bill of complaint "because the defendant has not encroached upon any rights of the plaintiff", the decree reading as follows:

"DECREE.

This case coming on to be heard on pleadings and proof, and the Court having heard counsel for the respective parties, and upon due consideration, finds that the defendants have not infringed Letters Patent of the United States No. 758,574, and No. 758,575, the patents in suit, it is therefore

ORDERED, ADJUDGED AND DECREED, that the bill of complaint be dismissed with costs to the defendants."

(Record, page 25.)

An appeal was taken to the Circuit Court of Appeals for the Third District, on the following assignments of error:

"*First;* The Court erred in finding that the patents in suit, No. 758, 574 and 758,575, are invalid because of lack of invention in view of the prior art.

Second; The Court erred in finding that the defendant had not infringed Letters Patent of the United States No. 758,574 and 758,575, the patents here in suit.

Third; The Court erred in dismissing the Bill of Complaint.

Fourth; The Court erred in not finding that the defendant had infringed the said Letters Patent, Nos. 758,574 and 758,575.

Fifth; The Court erred in not awarding to complainants an injunction and an account for profits and damages as prayed for in the bill of complaint."

(Record, pages 25 and 26.)

At the hearing in the Court of Appeals the argument was confined strictly to the case as made by the record which was certified to that Court.

The Court, however, made an independent investigation by letters among various libraries, as the result of which it was advised of the existence of certain publications alleged to disclose the use of horse hair in the art of extracting oil from cotton seed, and upon such evidence decided that "Werk's patents did not disclose any such novel information to the cotton seed art as warranted a grant to him of patent monopoly therefor, based on the use of horse hair."

(Record, top of pages 35, 36 and 37.)

The Court of Appeals did not pass upon the question of infringement, stating:

> "This conclusion renders it unnecessary to discuss the question of infringement which the Court below decided in favor of the defendant."
>
> (Record, top of pages 37 and 38.)

As this alleged anticipatory matter which had been discovered by the Court of Appeals was entirely foreign to the Record, and had not been considered either by the District Court or by counsel, and as there had been no opportunity afforded counsel to discuss this alleged anticipatory matter, either as to its competency, or its relevancy to the subject matter of the patents, a motion for a rehearing was made, but was promptly denied, although there was a suggestion contained in the opinion of the Court of Appeals that such motion would be heard:

> "In view of the fact that the references quoted were not given in evidence, we will defer sending the mandate to the Court below

until such time has elapsed as will enable counsel to determine whether any such reasonable grounds exist as warrant a motion for re-argument or other form of relief to meet such references."

(Record, top of pages 39 and 40.)

The motion for rehearing is printed in full at pages 42-45 of this Record.

Questions Submitted.

The questions which we shall ask this Honorable Court to consider are the following:

FIRST: Was it proper for the Circuit Court of Appeals to consider the matters not contained in the record which was certified to it by the District Court, and upon which it held the patents in suit to be invalid?

SECOND; Does such evidence in fact, show that the patents are invalid?

THIRD: On the whole case, are not petitioners entitled to the injunction and other relief prayed for?

Considering the first question, it appears from the decision of the Court of Appeals that apparently it had written to the Carnegie Library of Pittsburg, and to other libraries, for information concerning the use of horse hair in extraction of vegetable oil.

(Record, bottom of page 32.)

It does not appear that the Court personally examined and verified the existence of or the alleged disclosures of such publications to which its attention was called by the various librarians. There was no evidence at all in the record of the use of horse hair in the making of oil press mats, prior to the patents, and it appears that all the Court sought by its independent investigation was to deter-

mine whether or not horse hair had ever been used in connection with the extraction of cotton seed oil. There is no way of determining from this record just what questions were put by the Court of Appeals to the various librarians to whom it wrote, but apparently it sought only to ascertain whether horse hair had been used for making mats or other devices to be used in the extraction of cotton seed oil. If such was the inquiry, it is apparent that for the moment anyway, the Court of Appeals entirely disregarded the novel *structural* features of the oil press mat of the patents which, when combined with the use of horse hair, constitutes the invention of the patents, as will be hereinafter pointed out.

As the case stands, our patents have been invalidated on prior publications not pleaded by the respondents, and of which, we submit, the Court had no right to take judicial notice.

The defense of anticipation by a prior publication is covered by statute as follows:

> "In any action for infringement, the defendant may plead the general issue, and having given notice in writing to the plaintiff, or his attorney, thirty days before, may prove on trial any one or more of the following subject matters. * * * * *
>
> THIRD: That it has been patented or described in some printed publication prior to his supposed invention or discovery thereof, or more than two years prior to his application for a patent therefor * * * And in notices as to proof of previous invention, knowledge or use of the thing patented, the defendant shall state the names of the patentees and the dates of their patents and when granted, and the names and residences of the presons alleged to have in-

vented or to have had the prior knowledge of the thing patented, and where and by whom it had been used; and if any one or more of the subject matters alleged shall be found for the defendant, judgment shall be rendered for him with costs. And the like defenses may be pleaded in any suit in equity for relief against an alleged infringement, and proofs of the same may be given upon like notice in the answer of the defendant and with like effect."

(Section 4920, Revised Statutes.)

There was no such pleading in the respondents' answer concerning the matters discovered by the Circuit Court of Appeals, nor any notice, and we submit therefore, that had the defendants sought in the District Court at the trial of this case to introduce evidence concerning the printed publications, such evidence, if objected to, would have been excluded, and knowing the Court of Appeals for the Third Circuit as we do, we are quite sure that that Court if the respondents had sought to produce these publications at the argument, would have promptly denied them an opportunity to discuss them.

We can conceive of no reason why the Court of Appeals on its own initiative should institute an independent investigation to determine whether or not the patentee was the first to use horse hair in the manufacture of oil press mats, because as the record shows, *we do not rely exclusively on that element for the novelty of the patented press mats, but emphasize in addition to the use of horse hair, the structural characteristics of the patented mats, which, so far as the record shows, were new.*

We do not question the right of the Circuit Court of Appeals to consider the question of the validity of

our patents, and whether or not they disclose invention, even though they may have been sustained by the District Court, and even though the real question before the Court was one of infringement, nor do we question the right of the Court of Appeals to declare out patents invalid on matters of which they could properly take judicial notice,—matters which were not pleaded or proven; but we submit that to warrant the Court in taking judicial notice of such matters, *they must be matters of general and common knowledge.*

We do not question the right of the Court to consult standard dictionaries, encyclopedias, and other printed authorities for the purpose of refreshing its recollection of *matters of common and general knowledge*, but we submit that the use of a certain material for making oil press mats, or even the fact that such mats are used in the art of oil extraction, is not of such common and general knowledge as to warrant the Court in taking judicial notice therof, and in view of the statute concerning the requirements necessary to base a defense in patent suits on prior printed publications, and prior patents, the action of the Court of Appeals in the present case was entirely unwarranted.

The rule concerning judicial notice as stated by this Honorable Court in *Brown* vs. *Piper*, 91 U. S., 37, is as follows:

> "Of private and special facts in trials, in equity, and at law, the court or jury, as the case may be, is bound carefully to exclude the influence of all previous knowledge, but there are many things of which judicial cognizance may be taken * * *.
>
> Courts will take notice of whatever is generally known within the limits of their jurisdiction and if the judge's memory is at fault, he

> may refresh it by resorting to any means for that purpose which he may deem safe and proper."

In the case of *Black Diamond Coal Mining Co.* vs. *Excelsior Coal Co.*, 156 U. S., 611, this Honorable Court stated that hoppers with chutes beneath them, by means of which vessels are loaded, were so common, that it might take judicial cognizance of them. (Citing *Brown* vs. *Piper; Terhune* vs. *Phillips*, 99 U. S., 592; *Kean* vs. *Gallum*, 109 U. S., 99; *Phillips* vs. *Detroit*, 111 U. S., 604.)

In *Terhune* vs. *Phillips*, judicial notice was taken of the fact that the patent covered merely the substitution of metal for wood in making a corner socket for a show-case.

Obviously however, the common and well known ice-cream freezer, the use of elevators and loading chutes, and the mere substitution of metal for wood in show-cases, would be such matters of common and general knowledge as a court could properly take judicial notice of.

In the present case certain publications and a prior patent have been utilized by the Court of Appeals on *its own initiative* as anticipations of petitioners' patents, contrary to the statute and regardless of the plaintiff's rights, the alleged evidence having never been pleaded nor offered, and we submit that such special defenses can only be given when properly covered by the required notice.

This Honorable Court in *Wilton* vs. *Railroads*, 1 Wall., 195, states as follows:

> "Such notice is required in order to guard patentees from being surprised at the trial by evidence of a nature which they could not be presumed to know or be prepared to meet, and

> thereby subject them either to delay or a loss of their cause. To prevent such consequences the defendant is required to specify the names and places of residence of the persons on whose prior knowledge of the alleged improvements he relies to disprove novelty of invention and the place or places where same had been used."

See also,

> *Teese* vs. *Huntington*, 64 U. S., 14.
> *Bates* vs. *Coe*, 96 U. S., 31.

In *Blanchard* vs. *Putnam*, 75 U. S., 420, this Court had before it a case wherein certain evidence to show prior knowledge and use was admitted without the notice required by the statute, and in reversing the lower court, this Court, referring to its previous decisions in *Teese* vs. *Huntington*, 64 U. S., 14 and *Agawam* vs. *Jordan*, 75 U. S., 179, and other cases, held that such evidence was inadmissible in the absence of a compliance with the requirements of the statute.

It would seem that this Honorable Court has definitely expresed its disapproval of attacking the novelty of patented inventions on matters not pleaded and proven, and as an instance we find this Court stating in *New York Belting & Packing Co.* vs. *New Jersey Car Spring Co.*, 137 U. S., 741, as follows:

> "Whether or not the design is new is a question of fact which, whatever our impressions may be, we do not think it proper to determine by taking judicial notice of various designs which may have come under our observation.
>
> It is a question which may and should be raised by answer and settled by proper proof."

What the court below has done is, to attack the novelty and validity of our patents on alleged "prior

publications", without affording us an opportunity to introduce evidence concerning the relevancy of such "prior publications", and demanding full proof of their alleged existence at a date sufficiently anterior to our patents to constitute an anticipation, and we submit that under the statutes and under the rules of this Honorable Court, such a proceeding is unlawful.

Merits of the Case.

Assuming that this Honorable Court will, now that the case is before it, review the entire case, and will, if it finds that our patents are valid, in view of all that was properly before the Court below, and also considering the matters upon which the Circuit Court of Appeals based its decision, we shall now carefully point out the magnitude of petitioners' patented inventions and the clear infringement thereof by the defendants.

We trust that this Court will consider and decide the merits of this case and will not send us back to the lower courts for the purpose of reviewing this new evidence, for the reason that petitioners' patents have not much longer to run, and besides the present defendants there are, and have been for some time, other infringers.

The Invention of Petitioners' Patents.

Briefly stated, the invention of the patents in suit may be said to involve:

First: The use of long animal hair in the manufacture of an oil-press mat.

Second: The particular structural features of the woven fabric, in which the warp-threads greatly exceed in number per square inch the weft-threads and are closely arranged to cover and protect the weft-

threads, and as more specifically defined in the single claim of patent No. 758,575, the weft-threads being thicker than the warp-threads.

From the foregoing it will be observed at the outset that the question of invention does not involve merely the selection of material, but in addition to the selection of material there is specifically involved structural characteristics, and as this record shows, an oil-press mat made of the material and having such structural characteristics was absolutely novel.

The learned Judge of the District Court states as follows:

> "So far as evidence in this case discloses, the mats known to the prior art were made of camels' hair. From the results of the use of camels' hair mats sprang the demand for something better. The camels' hair of which the mats were made is a mixture of hair and wool."
>
> (Record, page 21.)

Concerning the state of the art, the patentee states:

> "The highest grade of mat now in general use is made from camels' hair."
>
> (Record, page 19.)

No evidence was offered by the defendant to show any different state of the art than is here stated.

The District Court further states:

> "The design embraces two meritorious features, one is in making use of the differential qualities of animal wool and animal hair with respect to their felting characteristics.

The other is in the use made of the material when selected."

(Record, page 23.)

"The use of woof and web and all possible variations in the length and in the mode of applying the fibres or threads in the process of weaving are old. The evidence for the defendant to be directed to the other features of the claimed invention is very meagre. It may indeed be said to be absent."

(Record, pages 23 and 24.)

"The patentee in this case claims the merit of having discovered that he could, by using a different material from that which was known in the art of mat-making, and by having the fibres or threads of this material woven in the usual way of warp and weft threads, but having the weft-threads composed of soft and pliable fibre and less in number than the warp-threads, and in addition having the weft-threads thicker than the warp-threads, overcome the dificiencies of the mats then in use."

(Record, page 21.)

The Defendants' Oil-Press Mat.

The defendants' oil-press mat is made of human hair.

(Ritchie, Record, page 7, and Cohen, Record, page 11.)

In the defendants' oil-press mat the weft-threads are soft and pliable hair, and the warp-threads exceed the weft-threads in number two to one per square inch.

(France, Record, page 14.)

Mr. France further testified that in defendants' mat the weft-threads were made up wholly of relatively

soft and pliable hair and are about one-tenth larger in diameter than the warp-threads.

(Record, page 14.)

Concerning the defendants' oil-press mat, Robert F. Werk testified that there were twelve warp-threads to the inch and four weft-threads, and that the warp-threads are arranged in relatively close proximity and cover the weft-threads completely.

(Werk, Record, page 15.)

From the foregoing it appears that the defendants' oil-press mats are *structurally* exactly like the oil-press mats defined in the patents in suit, but that instead of being made of hair derived from the tails and manes of quadruped animals, such as horses and cows, they are made of hair derived from the heads of biped human animals, namely, hair from the heads of Chinamen.

Human hair in oil-press mats is the full equivalent of animal hair such as set forth in the patents. On this point Mr. Ritchie testified that an oil-press mat made of hair from the head of a Chinaman, or other human hair, would have the same elasticity and strength and flexibility as hair from the manes and tails of animals, and he further testified that so far as the drainage properties of an oil-press mat are concerned, an oil-press mat made of human hair would be the same as an oil-press mat made of hair from the manes and tails of animals.

(Ritchie, Record, page 7.)

On this point the District Court very properly found:

> "The mat as manufactured and sold by the defendant answers to all the features of the

plaintiff's patent except that the material there used is human hair."

(Record, page 22.)

"Tested by these principles, we have here an identity of results. * * *

This comparison discloses a further identity of means except only in the variation of the use of human hair as distinguished from the hair of animals. The substituted material produces the same result. It is used as a means operating in precisely the same way. There is therefore an identity both with respect to the final purpose and the means of accomplishing the desired result."

(Record, page 23.)

Comparative Results.

The District Court found:

"The mat which he produced was an improvement upon the old mat in several respects or features. One was that it was more efficient in that with its use all the oil could be extracted from the material and this loss saved. Another was that what might be called the longitudinal strength of the mat was increased with the resultant saving due to the mat lasting for a much longer time than the old mat. The third was that the improved mat could be produced at a much less cost than the old camels' hair mat."

(Record, page 22.)

"These results were accomplished by making the mat entirely of long animal hair, the fibres or threads of which as used in the warp of the woven cloth exceeded in number those used

in the weft, and the weft-threads being exclusively of soft, pliable hair, or by having the mat woven of fibres or threads of long but soft and pliable hair obtained from the tails and manes of animals, and so selected that the weft-threads will be thicker than the warp-threads, and so woven that the warp-threads would exceed in number the weft-threads. As would be expected, the grand result was, according to the evidence, that the new mat superseded the old."

(Record, page 22.)

The evidence on this point is clear and uncontradicted.

John E. Kaiser, a mill superintendent, with sixteen years' experience in oil mills, after describing the process of extracting oil from cotton seed and pointing out that the oil-press mats with their enclosed cotton seed pulp are subjected to a pressure of 3,800 to 4,000 pounds to the square inch, testified concerning the old camels' hair oil-press mat such as the witness had used for a period of seven to ten years:

"An oil-press mat made of camels' hair would not last over five days; that was the best result ever obtained by me with a mat made of camels' hair."

(Record, page 9.)

He explained that in order to get the oil out of the cotton seed they should put in as much water as was possible; but if they put in too much water when using camels' hair oil-press mats they will burst at the folded ends, and that when they burst they have to be cut and patched, and that such oil-press mats *never lasted over five days.*

(Record, page 9.)

The witness further testified that hair oil-press mats (such as he obtained from the complainants and like the defendants' infringing oil-press mat), *they could use for twenty days.*

(Record, page 9.)

As compared to oil press mats made of camels' hair, the complainants' oil press mats have an advantage of fifteen days in their useful existence.

Mr. Kaiser further testified that a camels' hair oil-press mat, because it clogs up and gets a skin on it, or a scum, there is difficulty in getting the oil through the mat and it is difficult to strip the oil cake from the mat or the mat from the oil cake, and that they have to use a machine to separate the mat from the oil cake. He states that for a short while the oil will go through it; in about twenty-four hours or thirty-six hours it gets in bad condition.

> "In the use of oil-press mats made of hair, the mat does not cake up, and the oil goes through freely, and there is no difficulty in stripping the oil-press mat made of hair from the oil cake, but with camels' hair they have to use a machine to get it off."
>
> (Kaiser, Record, page 10.)

This testimony shows the improvements in the function as between complainants' patented oil-press mats and the oil-press mats of the prior art.

Improved Results.

Mr. Kaiser testified that he had made tests to determine how much oil is left in the oil cake while using camels' hair oil-press mats, and the lowest percentage of oil ever found in the cake when using camels' hair mats was 6.04, which indicated that there was 6.04 per cent. of oil remaining in the cake, and con-

sequently lost when using camels' hair mats; that the average oil remaining in the cake when using camels' hair mats was 7.5 per cent.

> "With oil-press mats like complainants' hair mats the best reports indicated that there was 4.64 per cent. of oil remaining in the cake and that the average was 5.92 per cent."
>
> (Record, page 10.)

It thus appears that in addition to lasting four times as long as camels' hair oil-press mats, there is a resulting saving of oil, owing to the fact that the complainants' oil-press mats do not clog up.

Saving in Cost.

According to Mr. Kaiser, the cost of camels' hair oil-press mats average 18 cents per ton of seed pressed, whereas with hair mats they cost 10 cents per ton of seed pressed.

(Record, page 10.)

From the foregoing it will be seen that the patented oil-press mats, in addition to being new, last longer and accomplish an improved functioning, and a material saving, not only in the oil extracted but in the cost of the mats compared with the tonnage of seed operated upon.

The District Court states:

> "The substitution of one material for another by bringing in a new quality may result in gain."

And he adds:

> "It did so here."
>
> (Record, page 24.)

"We feel the strength of the appeal which lies in the fact that the claims of the plaintiffs are based upon at least undoubted commercial novelty and utility."

(Record, page 24.)

"That the plaintiffs' make of mats possessed commercial novelty and value is beyond denial."

(Record, page 23).

"As would be expected the grand result was according to the evidence, that the new mat superseded the old."

(Record, page 22).

At the trial and at the close of the argument the District Court was doubtless impressed that the plaintiffs must prevail, for in the opinion he states:

"At the trial of the case, we were strongly impressed with the thought that the defendant had failed to meet the plaintiffs' *prima facie* case and that in consequence the plaintiffs must prevail."

(Record, page 24.)

Apparently, however, when the Court proceeded to prepare its opinion the learned Judge in treating the question of patentability applies to the patents the *demurrer* test, for he states:

"The test of the plaintiffs' case is therefore the demurrer test. Put into a nutshell the question is this: Is invention involved in making use of a known quality inherent in some materials?"

(Record, page 24.)

The demurrer test in the light of the evidence which shows a new structure, a new mode of operation, a new function and new results, it is submitted is an unfair test.

On the evidence as thus presented, and as the case went to the Court of Appeals, we submit that the patents presented a new structure in which was combined long animal hair as distinguished from camels' hair, and certain structural characteristics, all producing an oil-press mat, which as compared with those theretofore known, operates in a better manner, lasts four times as long, costs much less to use, and effects a considerable saving in the product upon which it operates, and one which has superseded all others, which points we submit, must be considered in the aggregate, and that it is unfair to consider such a device first, as involving a change in material, and second, as involving a mere old form of weaving. There is nothing new in the form of weaving. The mat, like all other mats, consists of warp and weft threads crossing each other at right angles and interlaced in a well known manner, and considered merely as weaving, Mr. Werk frankly stated what is the fact, —that the camels' hair mats had been put together in the same way.

(Record, page 15.)

There was no evidence however, to show that such a mat had been produced in which the warp and weft threads were made *entirely* of long animal hair, in which the weft threads were composed *exclusively of soft pliable hair*, and in which the warp threads *greatly exceeded the weft threads* in number per square inch, as provided by claim 1 of patent No. 758,574, nor that it was not new to make an oil press mat in which the warp and weft threads were composed exclusively of

long hair and in which the warp threads exceeded the weft threads in number per square inch, and in which the weft threads were *thicker* than the warp threads, as provided by the single claim of patent No. 758,575. That is the subject matter of the patents here at issue, and it is such a structure that the defendants made, substituting for animal hair, hair from the head of a Chinese.

The New State of the Art as Discovered by the Appellate Court.

The appellate court apparently lost sight of the fact that as the case was presented to it, the validity of the patents was not urged *solely* on the substitution of long animal hair for camels' hair, and that is the reason we find the appellate court looking through the libraries to discover whether any one had in fact, made use of horse hair and similar hair in the construction of mats for the extraction of oil.

Apparently, the court found numerous instances of the alleged use of horse hair for this purpose, but, as it will be clear to this Court upon a careful reading of the extracts from these publications as they appear in the court's opinion, not one of them discloses the *structure* claimed by the patents here at issue, whether it be made of horse hair or any other material.

The court refers to the Standard Dictionary of 1895, wherein "hair cloth specif.: mats woven from horse hair used in expressing oils, etc.," are referred to, and thereafter directs atttention to the British Encyclopedia of 1884, from which it quotes the following:

> "With the least possible delay the meal is transferred from the heating kettles so that the oil may be pressed out while the material still retains its heat—measured quantities, say ten

> or twelve pounds of meal, are filled into woolen bags of strong, thick texture, sufficiently open and porous to allow free flow of the expressed oil, yet having consistency enough to resist rupture by the enormous pressure to which it is subjected. Each bag is further placed within 'hairs' thick mats of horse hairs bound with leather. In some methods of working, press-cloths—not bags—are used, and the construction of recent presses is such as to dispense with the use of bags or other coverings."

It will be noted that no information whatever is given to show how "these thick mats of horse hairs bound with leather," or "press-cloths" are made. There is nothing to show that the warp and weft threads were entirely of long animal hair, nothing to show that the weft threads were exclusively of soft pliable hair, nothing to show that the warp threads greatly exceeded the weft threads in number per square inch, and nothing to show that the weft threads were thicker than the warp threads.

The Court then refers to a publication entitled "Samuelson On Oil Well Machinery," alleged to have been published in 1858, from which it quotes as follows:

> "The bags after being filled are placed separately between what are called the hairs, which are bags made of horse hair with an external covering of leather. The same description of bags and hair are used whether the oil be expressed by means of the stamper screw or hydraulic press."

All that can be gathered from this quotation is, that apparently some one has used horse hair bags covered with leather. There is certainly nothing to

indicate the construction of the oil press mat as set forth in the patents here at issue.

This is also true of the extract from Spon's Dictionary of Engineering, 1874, which refers to bags used in connection with horse hair wrappers.

It will be noted that the Court of Appeals also refers to a British patent, No. 2645 of 1877, granted to H. C. Newburn, and quotes therefrom concerning the use of filter cloths made of horse or other hair.

(See Record, page 32.)

This patent was not cited by the defendants, was not before the District Court, and even if relevant, could not be considered by the Court of Appeals on its own initiative.

The Court of Appeals then quotes from a publication known as "Brannt's Animal & Vegetable Fats and Oils", alleged to have been published in 1888, in which there is a reference to the use of horse hair, as well as cotton and sheep's wool, to manufacture press cloths and bags.

(Record, page 32.)

Nothing therein contained shows the peculiar construction of the patented mats.

The Court of Appeals next refers to the Engineering Magazine of September, 1892, in an article by I. W. Thompson entitled "The Cotton Seed Oil Industry," and the Court of Appeals quotes the following:

> "The earliest form of hydraulic press used in oil mills was vertical containing five bags of compartments about 9 x 20 inches for receiving the perpared kernels, which were in bags and enclosed still further in horse hair 'mats' or 'bags.'"

It is to be noted that there is nothing said in this extract concerning the relative size or numbers of the warp and weft threads. In fact nothing to indicate that the alleged horse hair mats were *woven* mats.

It is to be further noted that apparently in most of these things found in the citations of the Court of Appeals the kernels from which the oil is extracted do not come in contact with the mats, but are put in bags which are enclosed in mats.

In the petitioners' patent the structure is clearly defined as being one in which the warp threads greatly exceed the weft threads in number per square inch, and also the weft threads are thicker than the warp threads.

The Court of Appeals next refers to the Popular Science Monthly for May, 1894, and is as follows:

> "The kernels are then pressed in woolen bags packed between horse hair mats backed with leather and having a fluted surface inside to allow the oil to escape more freely."

This is open to the same criticism, namely, that the structural characteristics of the horse hair mats are not to be found, and it is to be further noted that the kernels are enclosed in woolen bags and do not come in contact with the horse hair mats, and that the latter are backed up with leather. It would have been an easy matter to have differentiated the subject matter of petitioners' patents from anything set forth in this alleged anticipation.

The next citation relied upon by the Court of Appeals is alleged to be found in a publication from the United States Department of Commerce, Bureau of Foreign and Domestic Commerce, Special Agents' Series, No. 84, Part 1., 1914, Page 69, and is as follows:

> "The Netherlands; oil mill methods. Most of the Dutch oil mills were built for linseed, and the original plan for linseed is followed for such other crushing as is done * * * They (the cakes) were made by pouring the hot meats into woolen bags and *pressing between horse-hair mats, just as cotton-seed cake was made in the United States at one time.*"

As to this extract, it will be noted that the publication is dated 1914, whereas petitioners' patents are dated 1904, and that it refers to a use in a foreign country which does not affect the validity of a patent in the United States, and it is to be further noted that the structural characteristics of the alleged horse-hair mats are not described, and further that the meats are enclosed in woolen bags and do not come in contact with the mats.

The next citation referred to by the Court of Appeals is one cited by Bowdoin College alleged to be from British Encyclopedia, Vol. II, Page 376 of 1880, and is as follows:

> "*Horse hair* is woven into bags for oil and cider presses."

This is certainly a very meagre description of an anticipatory structure. Nothing is stated as to the construction of the horse-hair bags nor how they are used.

The Court of Appeals next quotes a citation from "A Practical Treatise on Animal and Vegetable Fats and Oils," 1888, W. T. Brannt, alleged to be found in the Library of the Department of Agriculture, Washington, D. C., which is as follows:

> "The bags of strong woolen stuff, when full, are pressed flat between *horse hair* mats and then brought into the press." (page 102).

"Before placing the heated seed-meal in the press, it is put in woolen cloths or *horse-hair* bags" (page 107).

"After the oil is expressed * * * the *horse-hair mats* are taken out and the press cake removed from the bag" (page 116).

"(For press-cloths) 'The most suitable materials are cotton, sheep's wool, *and horse-hair*'" (page 147).

With one type of machine described, the seed-meal is wrapped in woolen cloths and pressed without mats.

"The advantages of this machine are as follows:

"1. The expensive hairs are done away with.

"2. Each press instead of four cakes * * * can now accomodate eighteen on account of the slight thickness of the cakes themselves * * * and the absence of *the* hairs" (page 120).

It is to be noted that the "horse-hair mats" and "horse-hair bags" are not structurally described, so that it cannot be determined whether they are structurally like those of petitioners' patents, and further that whatever they may be they are used with woolen cloths and that the seed-meal does not come in contact with the horse hair mats.

The Court of Appeals next cites an abstract alleged to be found in Spons' Encyclopedia of the Industrial Arts, Manufactures and Raw Commercial Products. 1882, and quotes as follows:

"In all these presses *the hair* wrappers, weighing some 26 lb. used in the old processes, are dispensed with" (page 1453).

It will be noted that, whatever these hair wrappers may be, the extract does not show that they are the hair wrappers or hair mats of petitioners' patents—in short, so far as the character of the hair is concerned, or the structure of the mats is concerned, nothing is said.

The Court of Appeals next refers to Andes' Vegetable Fats and Oils, London, 1897, from which it makes the following quotation:

> "These presses are arranged as follows: Four, six, eight or ten wrought iron or steel rings are erected one above another in the press, each of them having a movable bottom of steel pierced with fine holes, and between every two rings a cast iron or cast steel plate is laid, the upper side of which is grooved, but the under side smooth. To these plates, which are inserted between the columns of the press, are attached iron rails in which the press rings are suspended, and serve as guides for the insertion and withdrawal of the latter. In addition to this, each plate is surrounded by a channel for catching the expressed oil. The filling of the press is a simple operation. On the perforated bottom of each ring is laid a cover of *plaited horse hair*, wool or felt, on which the meal is spread and covered with a *horse hair cloth*. When the rings are all filled, pressure is applied, forcing the grooved upper surface of each plate into the ring above, and thereby causing the oil to flow out *through the horse hair cloth*, and perforated steel plate and the grooves of the press plate, into the oil channel" (page 71). " * * * The cleaned seeds are passed into a rotary cylinder containing 24 circular fixed knives and the

> equal number of cutters, which divide the seed into very small pieces. The hulls are thus separated from the kernels, and form a valued food for cattle. The kernels are pressed between rollers like those in a cane sugar mill, and the oil runs out. The mass is then put into woolen press bags, laid between *horsehair cloths* covered with ruffled leather to enable the oil to flow more freely, and submitted to hydraulic pressure. The bags are exposed to warm pressing for 17 minutes, a time sufficient to force out all the oil, which collects in a channel, leaving only the dry kernels behind. These constitute the oil-cake of commerce" (page 112).

It will be noted that all that can be determined from this extract is that horsehair cloth was used, but that the structural characteristics of this horsehair cloth are not set forth. Therefore it cannot be determined that this is anticipatory of petitioners' patented oil press mats having certain structural characteristics.

The Court of Appeals next cites Branndt's "A Practical Treatise on Animal and Vegetable Fats and Oils," Philadelphia, 1806, Vol. I, Chapter X, "Manner of Obtaining Fixed Oils" (quoted in opinion and cited by Carnegie Library, Pittsburgh), which it quotes in its opinion at page 8 as follows:

> "The material, in the manufacture of press cloths and bags should be capable of great resistance, and while close enough to prevent any meal from penetrating to allow the oil to run out as freely as possible; properties not readily found combined in any one material. The most suitable materials are cotton, sheep's wool and horsehair."

This does not disclose the structural characteristics of the oil press mats of your petitioners.

The Court of Appeals next refers to "Cotton Seed and Its Products," No. 36, published by the United States Department of Agriculture in 1896, and from which it quotes as follows:

> "The cakes as they come from the (cake) former are wrapped *in haircloth* and removed by hand to the press, where they are arranged in a series of boxes, one above the other, between the plates of the press and subjected to a pressure of three thousand to four thousand pounds to the square inch by hydraulic power."

Nothing is to be found in this citation showing the structural characteristics of the haircloth, or that they are the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next refers to the "Scientific American Supplement," No. 830, of November 28, 1891, an article by D. A. Tompkins, describing English mills, and the following quotation is cited:

> "The process of working them was very simple. They are first crushed under old fashioned milling stones, then put in steam jacketed kettles with mechanism stirrers and cooked. The product was dumped from the kettles or heater into a wooden bin, and from the bin it was dumped into small cloth sacks, these being in turn enclosed in a hair mat. The whole was put into a hydraulic press containing about five boxes and put under about two or three thousand pounds pressure to the square inch, ten or twelve inches in diameter."

In this extract and the one immediately preceding, there is nothing to show that the haircloth or mat was made of horsehair, or that it had the structural characteristics of the oil press mats of petitioners' patents.

It is to be further noted that the seed or other material is first put into cloth sacks and does not come in contact with the hair mats.

The next citation by the Court of Appeals is alleged to be found in the Encyclopedia Britannica, 9th Ed., 1894, Vol. 17, p. 742, in an article on "Oils," and it quotes the following:

> "Measured quantities of the meal are filled into woolen bags * * * each bag is placed within 'hairs,' thick mats of horse hair bound with leather. In some methods of working, press-cloths—not bags—are used; and the construction of recent presses is such as to dispense altogether with the use of bags or other coverings."

Here again we fail to find any description of the structural characteristics of the mats made of hair or the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites an article on "Waste Products; Cotton Seed Oil," Vol. 45, "Popular Science Monthly," p. 107, March, 1894, as follows:

> "The kernels are conveyed to rollers where they are crushed very fine. They are thence removed to the heaters * * * then placed in woolen bags, packed between horsehair mats, backed with leather and having a fluted surface inside to allow the oil to escape more freely."

There is nothing to show how these horsehair mats were made, or that they had the structural characteristics of the oil press mats of petitioners' patents. Whatever they were they were backed with leather having a fluted surface and therefore structurally different from petitioners' oil press mats.

The Court of Appeals next cites the Encyclopedia of Chemistry, J. B. Lippincott & Co., 1879, and quotes the following:

> "The bags, after being filled, are placed separately between what are called the 'hairs,' which are bags made of horsehair, with an internal covering of leather. The same description of bags and horsehair are used, whether the oil be expressed by means of the stamper, screw or hydraulic press. Several different kinds of presses are used in the extraction of oils, as the screw press, the wedge press and the hydraulic press."

These bags made of horsehair and covered with leather are certainly not the oil press mats of petitioners' patents. At least the structural characteristics to be found in the patents are not to be found in this brief extract from the Encyclopedia of Chemistry.

The Court of Appeals next refers to Ure's Dictionary of Arts, etc., Longman, Green & Company, 1881, as showing the use of horsehair envelopes in hydraulic oil presses, and that the oil passes through wooden bags and horsehair mats, and as showing the use of hair-cloth and hair-bags, and quotes the following:

> "The hot meal is then placed between the sides of wrappers formed of thickly woven

> horsehair backed with corrugated leather to facilitate the escape of the oil, which are called 'hairs' or 'books.' The hair and its continued bag or seed are then placed in the hydraulic press."

Nothing in this citation shows the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites the "Engineering Magazine," Vol. 318, 1892, p. 826, and quotes the following:

> "The earliest form of hydraulic press used in oil mills was vertical, containing five boxes or compartments, about 9 x 20 inches, for receiving the prepared kernels which were in bags and enclosed still further in horsehair mats or 'books' * * * The next step was in substituting steel for horsehair mats, whereby the space occupied was so reduced in thickness that two bags might be placed in one box, doubling the capacity of each press."

This shows that while horsehair mats were used, it does not appear that such horsehair mats had the structural characteristics of petitioners' patents, and further, that the kernels from which the oil was to be extracted were first placed in bags and did not come in contact with the horsehair mats.

The Court of Appeals next refers to Lamborn's "Cotton Products," published in 1904, and quotes the following:

> "The modern plate press * * * has almost entirely superseded the old style box press, owing to its greater capacity * * * both in operation and use of mats and bags. With the box press the cooked meats were placed in

> woolen bags and these spread out and equalized in thickness on 'mats.' These mats were closely *woven from horsehair* and covered, etc."

There is nothing in this extract to show that these horsehair mats, whatever they were, embodied the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next refers to "Vegetabilische Fette und Oele" * * * Wein; A. Hartleben, 1896, pages 65 and 66, and quotes and translates the quotation as follows:

> "It is really impossible to have the two demanded qualities united in one and the same texture; a very closely woven cotton material answers this purpose the best and therefore in order to prevent the bursting of the pressed bags, one places around these during the process of pressing a close texture woven out of horsehair."

Nothing in this citation shows the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next refers to "Handbuch der Chemischen Techbologie," Otto Dammer, and translates the following quotation:

> "Before pressing, the shredded seed is put into bags or packed in woolen cloths, which must resist the great pressure, without soaking in much oil. Later you wrap them into a material woven from horsehair."

There is nothing in this citation to show that the material woven from horsehair has the peculiar structural characteristics of petitioners' patents.

The Court of Appeals next refers to "Theoretisch-practisches Handbuch der Oelfabrication und Oelreinigung * * * Weimar; Voigt, 1853; pp. 46, 47, from which it makes the following translation:

> "In the German way of packing they use cloths of five or six ply horsehair similar to a girth."

You cannot find the structural characteristics of the oil press mats of petitioners' patent in this citation.

The Court of Appeals next cites "Soaps," by George H. Hurst, London, 1898, p. 84, and quotes the following:

> "The bags are next enclosed in woolen covers, and are then wrapped again in what are called 'hairs,' which are strong cloths made of horsehair."

All that can be gathered from this citation is that horsehair cloths are used, but certainly it cannot be found that oil press mats having the peculiar characteristics of petitioners' patented mats were used.

The Court of Appeals next refers to "Chemistry," by C. W. Vincent, Vol. 2, of 1882, pp. 456 and 457, and quotes the following:

> "The crushed cake is enclosed in a press cloth or bag previous to its introduction into the case. The bags and cloths used for this purpose are made of different materials, the object being to have them sufficiently strong to bear the force exerted, while at the same time they are not so thick or porous as to retain any great quantity of liquid. Woolen cloth and canvas are specially manufactured with a view to its application to this process of expression. The bags after being filled are placed separately

> between what are called the 'hairs,' which are bags made of horsehair, with an external covering of leather. The same description of bags and hairs are used whether the oil be expressed by means of the stamper, screw or hydraulic press."

There is nothing in this citation to show the structural characteristics of the oil press of petitioners' patents, and further it is to be noted that they are used in connection with bags and a leather backing or covering.

The next citation is from "Animal and Vegetable Fixed Oils, Fats, Butters and Waxes," C. R. A. Wright, 2nd Ed., London, 1903, p. 262, from which the following quotation is made:

> "In some of the Marceilles oil factories an arrangement is in use known as the 'Estrayer Cylinder,' the action of which is somewhat akin to that of the wedge press. The apparatus consists of two cylinders, one inside the other, of which the outer acts upon the inner by means of a series of inclined planes, the inner cylinder being composed of eight segments which either close up tightly or separate according as pressure is exercised or removed by the position of the outer cylinder. Screens made of esparto grass and horsehair are employed instead of oil-bags of the same material (scourtins) such as are employed in other forms of press."

Certainly this horsehair screen referred to cannot be said to possess the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites Ure's Dictionary of

Arts, Vol. 2, p. 286, Appleton & Co., 1863, and quotes as follows:

> "Linseed, rapeseed, poppyseed, and other oleiferous seeds were formerly treated for the extraction of their oil, by pounding in hard wooden mortars with pestles shod with iron, set in motion by cams driven by a shaft turned with horse or water power, then the triturated seed was put into woolen bags which were wrapped up in hair-cloths, and squeezed between upright wedges in press boxes by the impulsion of vertical rams driven also by a cam mechanism."

There is nothing in this extract to show that horsehair was used, or that the hair-cloth had the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next cites the Farmers' Bulletin, No. 36, page 7, "Methods of Manufacturing Cotton Seed Products," and quotes the following:

> "After this crushing the meats drop into a conveyor, which delivers them to the heaters * * * The object of the cooking is to expand the oil into the meats and render it more fluid and to drive off the water which not only reduces the quality of the oil but is liable to work serious injury to the expensive cloths used to envelope the cakes in the press * * * Close to the heater stands the 'former' which shapes the meats into cakes for the press. The cakes as they come from the former are wrapped in hair-cloth and removed by hand to the press."

Here again we have reference to hair-cloth, not horsehair, and we cannot find any description which

would show that this haircloth had the characteristic structural features of the oil press mats of petitioners' patents.

The Court of Appeals next cites a French publication entitled "Traite Complet De Mecanique Appliquee aux Arts, Etc.," Vol. 5, p. 268, Paris, 1819, from which it makes the following translated extract:

> "In order to make these sacks, one can use weaves of hair, sackcloth made of hemp twine, ticking of heavy strong cloth, linen materials, weaves of seaweed or an earthly mineral of a shining lustre; the hair is preferable because it does not absorb the oil, because the meshes of its tissues do not touch each other easily, through its lastingness, its resistance to the force of pressure, finally through the ease with which one can clean it."

Certainly there is nothing in this citation to show the use of horsehair in making an oil press mat, nor to show the structural characteristics of the oil press mats of petitioners' patents.

The next citation in the opinion of the Court of Appeals is alleged to have been taken from Ree's Cyclopedia of Arts, London, 1819, and is as follows:

> "Olive and other vegetable oils, the products of the south of Europe, are also expressed by a machine, but it is not called a mill, being simply a strong screwpress, provided with a windlass or capstan, to give it a greater power; in short, it is the same machine as the Cyder Press. The olives are first pounded, or bruised, either in a large mortar, or by a running stone, in the same manner as the apples for making cyder. The pulp thus produced is put up in bags made of horse-hair, and a pile of these

> being made up under the press, the screw is forced down by men working a long lever, and the oil expressed."

There is nothing in this citation to show the structural characteristics of the horsehair bags referred to, nor that they had the same structural characteristics as the oil press mats of petitioners' patents.

The next citation is alleged to be found in Ure's Dictionary, 3rd London Ed., 1833, page 900, and is as follows:

> "The pressed cake is again thrown under the edge stones, and after being ground the second time should be exposed to a heat of 212 degrees Fahrenheit, in a proper pan, called the steam kettle, before being subjected to the second and final pressure in the woolen bags and hair cloths."

There is nothing in this citation to show the character of hair used in manufacturing the hair cloths, or that they were manufactured with the structural characteristics set forth in petitioners' patents.

The next citation to be found in the opinion of the Appellate Court is alleged to be found in the English Encyclopedia by Knight, Vol. 6, p. 26, London, 1861, and is quoted as follows:

> "In the wedge-press, of which there are many varieties, the crushed seeds are put into bags of hair-cloth, or some similar material, and these bags are then placed between boards or blocks of wood within a very strong and massive framework. The small end of the wedge is then introduced in such a way between the plates or the boards that, when it is driven down by the blows of a ram or pestle, it may compress the

> bags with enormous force. * * * Some of these act horizontally, the bags being, as in the wedge-press, placed vertically and separated from one another by cast-iron plates; but in others the bags are piled upon one another in cast-iron cases and placed in a vertical press. The seed is put into bags of flannel or horsehair. Among other advantages it is stated that the hydraulic or hydrostatic press requires less space than a stamping mill which could do the same work, and that the hairs and bags are found to last longer with it than with the old machine."

While horsehair is mentioned in this citation and bags of haircloth, there is nothing to show how they were woven, or that they had the structural characteristics of petitioners' patents.

The Court of Appeals next refers to Meyer's Konversations, Lexikon, Leipsig, 1906, Vol. 15, p. 53, from which it takes the following quotation:

> "In pressing one wraps the seed flour in heavy woolen cloths or puts it in bags and covers these with a layer of horse hair."

There is nothing in this citation to show that the horse hair is woven at all, and certainly nothing to show that the fabric produced has the structural characteristics of the oil press mats of petitioners' patents.

The Court of Appeals next relies on an alleged quotation from Pliny, which is translated as follows:

> "The Gauls have invented a kind of sieves made out of horse hair, the Spaniards bolting cloths and meal-sieves made out of flax, Egypt made out of papyrus and rushes."

Certainly this is a meagre description of an anticipatory reference for the oil press mats of petitioners' patents.

The Court of Appeals next refers to the Techno-Chemical Receipt Book, by Brannt and Hall, 1886, and also Pitman's Common Commodities of Commerce; Oil. By Mitchell, quoting as follows:

> "The kernels, technically known as the 'meats,' are now ready for crushing between iron rollers, after which process they are heated in steam jacketed kettles and shaped into cakes in a press termed the 'former.' These cakes are wrapped in hair cloths and subjected in hydraulic presses to a pressure of 3,000 to 40,000 pounds to the square inch."

There is nothing in this citation to show what kind of hair was used in the hair cloth referred to, nor how it was constructed, and certainly nothing which can be regarded as an anticipation of petitioners' patents.

The Court of Appeals closes the section of its opinion devoted to these citations with the following statement:

> "From the foregoing summaries it will be seen that the Court was fully justified in taking judicial notice of the use of horse hair in the extraction of vegetable oils prior to Werk's patents, and that inquiry at the libraries listed would, with a very few exceptions, have disclosed the use of horse hair mats or bags as a common agency in vegetable oil extraction."

This closing paragraph of the Appellate Court is significant as indicating the manner in which it approached the consideration of the case which was before it and apparently it regarded the patents of pe-

titioners as being directed solely to the substitution of horse hair for camel's hair *in a structure otherwise old*. In other words, that the invention of petitioners' patents resided in the use of horse hair only, and this notwithstanding that the evidence showed that the structural characteristics set forth in petitioners' patents embodying the relative difference in number of threads in the warp and woof, and the relative difference in size of such threads and the relative characteristic texture between the warp and woof threads which the defendant utterly failed to show was entirely disregarded by the Appellate Court.

On the Question of Invention.

The subject matter of patents here at issue, as has been pointed out, does not consist merely in the substitution of one material for another, but combines with that substitution new structural features, namely, in the relative size of the warp and weft threads respectively, and in the character thereof; that is to say, whether they are exclusively of soft pliable hair or otherwise.

It is unlike the case of *Hotchkiss* vs. *Greenwood*, 11 Howard 248, where there was a mere substitution of material only, but is more like the case of *Smith* vs. *Goodyear Dental Vulcanite Co.*, 93 U. S. 496, commonly known as the Vulcanite case. In that case this Court, after pointing out the structural characteristics, states:

> "It is evident that this is much more than employing hard rubber to perform the functions that had been performed by other materials, such as gold, silver, tin, platinum or gutta-percha. A new product was the result, differing from all that had preceded it, not merely in degree of usefulness and excellence,

but differing in kind, having new uses and properties."

In refering to the case of *Hotchkiss* vs. *Greenwood*, in the Vulcanite case, this Court states:

> "The patent in that case was for an improvement in making door and other knobs for doors, locks and furniture, and the improvement consisted in making them of clay or porcelain, in the same manner in which knobs of iron, brass, wood or glass had been previously made. Neither the clay knob nor the described method of attaching it to a shank was novel. The improvement therefore, was nothing more than the substitution of one material for another in constructing an article."

Still refering to *Hotchkiss* vs. *Greenwood*, in the Vulcanite case, this Court states:

> "The case does decide that employing one known material in place of another, is not invention, if the result be only greater cheapness and durability of the product. But this is all. It does not decide that no use of one material in lieu of another in the formation of a manufacture, can, in any case, amount to invention or be the subject of a patent. If such a substitution involves a new mode of construction, or develops new uses and properties of the article formed, it may amount to invention."

Under the doctrine of the Vulcanite case, therefore, where we show not only the substitution of a different material, but a different construction which not only effects a saving, but produces a different result, it would seem that patentability might be conceded, even

though, as the citations developed by the Court of Appeals seemed to show, the use of horse hair was not original with the patentee.

What the patentee has done seems simple enough, but such was also the case in *Webster Loom Co.* vs. *Higgins*, 105 U. S., page 580, and *Carnegie Steel Co.* vs. *Cambria Iron Co.*, 185 U. S., page 403. We quote from the loom case as follows:

> "Now that it has succeeded, it may seem very plain to any one that he could have done it as well. This is often the case with inventions of the greatest merit. It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produces a new and beneficial result never attained before, it is evidence of invention."

CONCLUSION.

In conclusion, we submit that patents which have been of such material value to the cotton industry as the patents here at issue, should not be invalidated in the manner adopted by the Court of Appeals, and that even had the matters upon which the Court of Appeals bases its decision been properly in the record, it would have been error to have invalidated our patents thereon, for while they show that horse hair was not new in the manufacture of devices used in the extraction of oil from cotton-seed, yet not one of these citations shows the particular construction embodied in the patented device.

Respectfully submitted,

T. HART ANDERSON,
Of Counsel for Petitioners.

No. 523

IN THE

SUPREME COURT OF THE UNITED STATES

ROBERT F. WERK and ROBERT F. WERK and MRS. JOHN LEWIS KENNEDY, doing business under the name of ROBERT F. WERK & COMPANY,

Petitioners.

vs.

F. THOMAS PARKER and J. THOMAS ROBEY, copartners, doing business under the name of F. T. PARKER CO.,

Respondents.

Brief on behalf of Respondents

JOHN WEAVER,
Counsel for Respondents.

MATHAWAY & BROS. PHILA.

H-65

IN THE

Supreme Court of the United States

October Term, 1917 No. 322

Robert F. Werk and Robert F. Werk and Mrs. John Lewis Kennedy, doing business under the name of Robert F. Werk & Co. Petitioners,

AGAINST

F. Thomas Parker and J. Thomas Robey, co-partners doing business under the name of F. T. Parker Co. Respondents.

Brief on Behalf of Respondents.

The complaint of the petitioners is that the respondents have infringed certain patents Nos. 758574 and 758575, each dated April 26, 1904.

The said Letters Patent were granted to the petitioners for their alleged invention of a new process of extracting oil from cotton seed.

The alleged process consisted

In the use of horse hair in the oil press mats.

In the arrangements and construction of the threads in the mats.

Claim of Patent No. 758574 is given at printed page 18 of the Transcript of Record, and is as follows:

"1. An oil-press mat or cloth made entirely of long animal hair and consisting of warp and weft threads, said weft-threads being composed exclusively of soft pliable hair and the warp-threads greatly exceeding the weft-threads in number per square inch.

"2. An oil press mat consisting of wrap-threads and weft-threads, both composed of long animal hair, and said warp threads consisting of hard, stiff and coarse hair mixed with soft pliable hair, and the weft threads consisting of soft, pliable hair; said warp-threads exceeding in number per square inch the weft inch the weft threads, and arranged in close proximity to each other so as to conceal and protect the weft-threads; the warp threads forming the selvage consisting of soft, pliable hair, and said weft-threads of soft, pliable hair being thicker than the warp threads.

"3. An oil-press mat consisting of hair warp-threads and hair weft-threads, the warp-threads being composed of hard, stiff, and coarse hair mixed with soft, pliable hair, and the weft-threads being composed of soft, pliable hair, the selvage of the mat being formed by warp-threads of soft, pliable hair."

Claim of Patent No. 758575 is given at printed page 20 of the Transcript and is given as follows:

> "An oil-press mat or cloth consisting of warp-threads and weft-threads, each composed exclusively of long hair derived from animals' tails and manes, which hair is soft and pliable; the warp-threads exceeding the weft-threads in number per square inch, and the weft-threads being thicker than the warp-threads."

The purposes intended are described in the Applications, and are recited in the Transcript.

Briefly it may be stated that the warp or longitudinal threads in the complainants' mats are made so numerous that they cover and conceal the weft-threads, and that this is in order to give protection to the weft-threads by preventing the cotton seeds from getting among them; that soft hair is mingled with stiff hair among the warp threads, in order to give the mat pliability; that soft hairs are chosen for the weft hairs, in order to afford a cushion for the warp-threads when the pressure is exerted by the machinery, lessening the liability of the warp-threads to cut or sever the thread; and that the weft-threads are thicker than the warp-threads, for the same reason

All these purposes are good, but they are not novel.

The structural arrangement, likewise, of complainants' oil-mats possesses advantages, but neither is such structural arrangement novel.

Because neither material nor structure was novel, the District Court and the Circuit Court of Appeals held that the defendants had not encroached upon the rights of the plaintiffs, and a decree by the District Court, dismissing the bill, with costs, was affirmed by the Circuit Court of Appeals.

The District Court and the Circuit Court of Appeals are supported in their findings and conclusions by the testimony.

1. Respecting the use of hair.

The evidence both of complainants and of defendants shows that the use of hair of some kind in the composition of oil-mats for holding cotton seed was old and general; and the investigation by the Circuit Court of Appeals of literature, especially literature devoted to the trades, shows that the use of horse hair was well and generally known.

From the testimony it appears that the use of camel's hair had been customary in this country in recent years, but that camel's hair possessed serious defects as compared with horse or with human hair.

Camel's hair consists of a wool part and a hair part. The wool becomes hair when combed; but when subjected to the pressure exerted in the extraction of the oil from the cotton seed, the camel's hair becomes more or less wooley again, thus creating obstructions which check the flow of the oil and cause a clogging-up and skin. This necessitates the use of another machine, in order to strip away these obstructions.

The complainants therefore adopted horse hair in the place of camel's hair, and this forms a feature of the Letters Patent granted them.

In the District Court it was made the leading feature.

The substitution of horse hair for camel's hair effected a considerable improvement, both as to expense and time.

The complainants contend that this improvement supports and validates the Letters Patent

This contention of complainants cannot be sustained. When they adopted horse hair, they simply used a material that had long been of use in the extraction of oil.

There was nothing novel about it This is shown in the most convincing and undeniable way by the Circuit Court of Appeals, in its quotations from standard works.

There is some reason to think that the use of horse hair goes back to classical times. See Pliny, 2, Book 18, Ch. 28, quoted in Transcript, p. 40.

However that may be, the standard works show the use of horse hair in oil pressure, not only in this country, but in England, France, Germany, for many years back; in England in 1819, France 1819, Germany 1853; and the references to such use continue through the years succeeding, showing that the knowledge was general and was continuous.

These references are shown in the printed Transcript, at pp. 29-40.

As a material, therefore, the selection of horse hair was the adoption of an old and known material, wholly lacking in novelty.

Judicial notice.

The complainants object to the references to these standard works, because the publications were not pleaded, and therefore could not be noticed by the Court.

In support of this objection they quote Section 4920, Revised Statutes. On reading the section it will be observed that it relates to particular, specific inventions or discoveries, and not to methods of general knowledge. Thus the pleader must state the names of the prior patentees and the dates of their patents and when granted, the names and residences of the persons alleged to have invented or to have had the prior knowledge of the thing patented, and where and by whom it had been used. These requirements have relation to individual, specific inventions, and not to matters generally known.

The use of horse hair in the extraction of oil was not an individual, specific matter. It was widespread and general

Indeed there is excellent ground for the belief that the use was general even in the variety of kinds of use. Thus on page 33 of the printed Transcript

the British Encyclopedia of 1880 (vol. 11, p. 376) is quoted:

> "Horse hair is woven into bags for oil and cider presses."

In view of the widespread use of horse hair, there is a significance that greatly favors these respondents in the reason given by the petitioners in their request that this Honorable Court will review the entire case because "besides the present defendants there are, and have been for some time, other infringees," that is to say, in the honorable trade and occupation of these defendants, others besides them have perceived the availability of a process of general, long and widespread use. They have felt free thus to act, because the use of horse hair was both old and recognized in the standard works.

As to matters of this kind, open to everybody, found in the standard works, the decisions are uniform that the Court may take judicial notice of them.

Judge may investigate for himself:

> Atty. Gen. vs. Dubli, 38 N. H., 459.
>
> Atty. Gen. vs. Drummond, 1 Connor & Lawton, 210; 1 Drury & Warren, 353.
>
> Peach yellows: State vs. Main, 69 Conn., 123.

He may inquire of others:

> People vs. Mays, 113 Cal., 618.
>
> Rogers vs. Cady, 104 Cal., 288.

or may resort to books, periodicals, etc.:

Bardine vs. Ala. Grand Lodge, 37 Ala., 478.

Facts of business usually prevailing in a community:

Lyon vs. Marine, 5 C. C. A., 359; S. C., 55 Fed., 964.

The general customs and usages of merchants; matters of science.*

The state of the art:

Parsons vs. Seelye, 100 Fed Cas., 452-454.

That metallic corner sockets for show cases were old:

Terhune vs. Phillips, 99 U. S., 592.

Devices for opening and closing outlets at a distance, as straps for omnibus doors, railway switches:

Aron vs. Manhattan Ry. Co., 26 Fed., 314, 366; affd. in 132 U. S., 84.

Hydraulic devices for removing sandy obstructions:

Knapp vs. Benedict, 26 Fed., 627.

Spring latch:

Ligowski Clay-Pigeon Co. vs. American Clay Pigeon Co., 34 Fed., 328-332.

Two parallel co-operating cylinders:

C. & A. Potts & Co. vs. Creager, 155 U. S., 597.

*Brown vs. Piper, 91 U. S., 37.

Methods of suspending lamps:

Lamson Consolidated Service Co. vs. Siegel-Cooper Co., 106 Fed., 734.

Method of pointing wire by pressure:

Heaton Peninsular Button-Fastener Co. vs. Schlochtmeyer, 69 Fed., 592-597.

Special Pleading Not a Requisite

In Walker on Patents, 5th Ed. (1917), Sec. 445, it is said:

> "Where any defense to a patent action can be based upon a fact of which the Court will take judicial notice without evidence, that defense may be made under the general issue without any special pleading."
>
> May vs. Juneau County, 137 U. S., 408 (1890).

Conclusion as to material.

The contention, then, that there is in this case a novel use or function of an old material cannot be sustained. See Fond du Lac County vs. May, 137 U. S., 395.

Novelty in Structural Arrangement

Both the District Court and the Circuit Court of Appeals have found that there is nothing novel in the structure and arrangement of the material. In this they are supported by the testimony. Some quotations will show.

The complainants contend that in the interblending of rough and soft hairs in the warp-threads, in the concealment or covering of the weft-threads by the warp, by the greater thickness and the lesser number of the weft-threads as well as in the softness of the latter, a new and valuable structural formation was introduced, and that therefore the patents excluding other manufacturers from their own independent use of such method are valid. The Court of first instance, and the Circuit Court of Appeals, were not moved by this argument, for the very plain reason that the methods were not new.

References may be made to pages 12, 15 and 23 of the printed Transcript of Record.

Page 12. Witness, Edward W. France, called by defendants:

> "The witness testified that he had examined Letters Patent No. 758574, and that there was nothing new and novel in the art of weaving set forth in that patent so far as the weaving is concerned."

Page 15. Witness (complainant), Robert F. Werk:

> "Mr. Werk's attention was called to the complainants' exhibit, defendants' infringing mat, and stated that there are twelve warp threads to the inch and four weft threads.
>
> "Interrogated by the Court he stated that the warp threads are arranged in relatively close proximity and that they cover the weft threads completely.

"On cross-examination the witness admitted that this was also true of a camel's hair mat, namely, that the warp threads concealed the weft threads, but that it was more difficult to manufacture hair that way on account of the coarser fibre. The witness admitted that mats of camel's hair had been manufactured in the same way." Page 23. Dickinson, J., in his opinion, said:

"The weight of the evidence is that with respect to the use made of the material of which the mat is composed, the designer has simply made a draft upon the known resources of the weaver's art. The use of woof and web and all possible variations in the length and in the mode of applying the fibres or threads in the process of weaving are old."

Here may be quoted the testimony of one of the complainants, Robert F. Werk:

"Interrogated by the Court he stated that the warp threads are arranged in relatively close proximity and that they cover the weft threads completely.

"On cross-examination the witness admitted that this was also true of a camel's hair mat, namely, that the warp threads concealed the weft threads, but that it was more difficult to manufacture hair that way on account of the coarser fibre.

"The witness admitted that mats of camel's hair had been manufactured in the same way." Printed Transcript, p. 15.

Varieties of Hair

The publications recited by the Circuit Court of Appeals show a resort to any kind of hair, some hair being better than others: to camel's hair, sheep's wool, horse hair, and to cotton; even to sackcloth and to seaweed (Transcript, p. 39). With this attention thus directed generally to all kinds of fibres or threads, it is beyond the rights of one manufacturer to select one already used and say that no one else shall use it, excepting through him.

It is hardly necessary, therefore, to refer to the decisions of this Honorable Court respecting applications of old methods to new uses; but for better assurance some may be mentioned. There are several such cases in 155 U. S. These are:

Market Street Cable Railway Co. vs. Rawley, 155 U. S., 621.

Potts vs. Creager, 155 U. S., 597.

Wright vs. Yuengling, 155 U. S., 47.

Olin vs. Timkin, 155 U. S., 141.

In Market Street Railway Co. vs. Rawley, 155 U. S., 621, at p. 629, Mr. Justice Shiras said:

> "A mere carrying forward of the original thought, a change only in form, proportions, or degree, doing the same thing in the same way, by substantially the same means, with better results, is not such an invention as will sustain a patent. Roberts vs. Ryer, 91 U. S., 150; Belden Manufacturing Co. vs. Challenge Corn Planter Co., 152 U. S., 100."

Wright vs. Yuengling, 155 U. S., 47, was with respect to Letters Patent for an improvement in frames for horizontal engines. Mr. Justice Brown, pp. 53-54, said:

> "If the combination of the trough and cylindrical guide of the Wright patent gives greater lightness and strength to the frame than the combination of the trough and the flat guides of the Farrar patent, it is a mere difference in degree, a carrying forward of an old idea, a result, perhaps, somewhat more perfect than had theretofore been attained, but not rising to the dignity of invention. We have repeatedly held patents of this description to be invalid. Simpson vs. Woodman, 10 Wall., 117; Smith vs. Nichols, 21 Wall., 112; Guidet vs. Brooklyn, 105 U. S., 550; Hall vs. Nacneale, 107 U. S., 90."

There is a review of the case in Potts vs. Creager, 155 U. S., 597.

To review these cases, however, is more or less misleading in the present instance; as here there is no new idea whatever, but simply the taking of horse hair and weaving it in certain ways; both material and structure being old, and both having been used in the extraction of oil.

When the complainants adopted the structural methods of their patents, therefore, they simply applied a method already in general use in weaving. The evidence recited shows that all possible variations in the threads as to sizes, etc., existed. It is respect-

fully submitted that the Court will not permit the complainants to seize upon one of these variations and to say that henceforth they alone control it.

The Letters Patent Do Not Include Human Hair.

Letters Patent No. 758574 claim for oil-press mat or cloth with threads made entirely of "long animal hair."

Letters Patent No. 758575 claim for oil-press mat or cloth with thread "composed exclusively of long hair derived from animals' tails and manes."

The testimony shows that human hair is known as human hair and does not come under the designation of "animal hair."

See printed Transcript, p. 7; and see pages 18, 20 and 22.

This aspect was considered by Dickinson, J., in the District Court. Printed Transcript p. 22. Apparently he was of the opinion that the use of the words "animal hair" was description, and that the patent covered any hair, including human hair.

It is probably unimportant to consider this, as the Letters Patent were based on error in that there was no "invention," either as respects material or structure, as has been shown herein. This Honorable Court has held, however, that where one claimed a part of his invention where he might have claimed more, he is presumed to have abandoned what he omitted to claim.

McClain vs. Ortmayer, 141 U. S., 419.

Deering vs. Winona Harvester Works, 155 U. S., 286.

Therefore, when the complainants claimed for the discovery of the use of "animal hair," they cannot extend their claim to cover human hair—hair not embraced within the trade definition of "animal hair."

In Conclusion

In conclusion, it may be well to call attention to the observation of Mr. Justice Brown, in Wright vs. Yuengling, 155 U. S., 47, at p. 52, where he said, as summarized in the syllabus:

> "When an invention is not a pioneer invention the inventor is held to a rigid construction of his claims."

This remark is especially and peculiarly pertinent to the present case. The complainants have taken material and devices known of old. They would exclude others from making like use, thus hindering and embarrassing a trade highly essential to the vital needs of the country.

They would do this when the nation is engaged in a great war, and when it is of the utmost consequence that the producers shall have every just and proper means available at their command.

It is respectfully submitted that the appeal should be dismissed.

JOHN WEAVER,
Attorney for Respondents.

WERK ET AL., COPARTNERS UNDER THE NAME OF ROBERT F. WERK & COMPANY, *v.* PARKER ET AL., COPARTNERS UNDER THE NAME OF F. T. PARKER COMPANY.

CERTIORARI TO THE CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT.

No. 73. Argued November 21, 1918.—Decided March 3, 1919.

The use of horse-hair mats for extracting oil, as abundantly shown in standard and easily accessible books of reference, may be noticed judicially. P. 132.

The application in the extraction of cotton-seed oil of mats made of horse hair or other long animal hair, woven in a manner designated, but without improvement in the art of weaving, *held* not invention, but merely mechanical adaptation of familiar materials and methods. P. 133.

Divisional patents Nos. 758,574 and 758,575, to Robert F. Werk, relating to oil-press mats for use in extracting cotton-seed oil, *held* invalid as to certain claims.

231 Fed. Rep. 121, affirmed.

THE case is stated in the opinion.

Mr. T. Hart Anderson for petitioners.

Mr. John Weaver for respondents.

MR. JUSTICE PITNEY delivered the opinion of the court.

Petitioners sued respondents in the District Court of the United States for the Eastern District of Pennsylvania for infringement of two divisional patents, Nos. 758,574 and 758,575, granted April 26, 1904, to Robert F. Werk. Defendants answered denying patentable novelty, and also denying infringement. The patents relate to an oil-press mat or cloth for use in the extraction of cotton-seed oil. The claim in issue under the former patent was for:

"An oil-press mat or cloth made entirely of long animal hair and consisting of warp and weft threads, said weft-threads being composed exclusively of soft, pliable hair and the warp-threads greatly exceeding the weft-threads in number per square inch."

And in the second patent:

"An oil-press mat or cloth consisting of warp-threads and weft-threads, each composed exclusively of long hair derived from animals' tails and manes, which hair is soft and pliable; the warp-threads exceeding the weft-threads in number per square inch, and the weft-threads being thicker than the warp-threads."

The District Court dismissed the bill on the ground of non-infringement. 221 Fed. Rep. 644. The Circuit Court of Appeals, without discussing this question, affirmed the decree upon the ground that the patent disclosed no such novel information to the oil-pressing art as warranted a grant of the patent monopoly. 231 Fed. Rep. 121. At the conclusion of its opinion the court stated (p. 125) that in view of the fact that certain references quoted were not given in evidence, the sending down of the mandate would be deferred for a time to permit of an application for reargument or other form of relief to meet such references. Thereupon a petition for a rehearing was filed in behalf of appellants, which, while not disputing the accuracy of the results disclosed by the court's investigation, insisted that there was error in giving effect to the anticipatory matter thus disclosed, and in "failing to give controlling consideration to the fact that both of the two claims declared upon are laid not only to a particular woven structure of an oil-press mat, but also to an oil-press mat of such particular woven structure, when its threads are composed of animal hair." The rehearing was refused; after which the present writ of certiorari was allowed. 242 U. S. 645.

In the process of obtaining oil from cotton seed, the

seeds, having been cleaned and freed from lint, are hulled and chopped up, the meats being separated from the hulls; the meats are passed through a crusher, next cooked in water, and after this are spread upon an oil-press mat or cloth, the ends of which are folded over to cover the upper surface of the cooked meats. The mat with its inclosed mass of meats is then placed in a press and subjected to a pressure of about 4,000 pounds, which has the effect of expressing the oil through the mat as through a strainer.

One of the patents declares, and the evidence at the hearing indicated, that the highest grade of mat previously in general use was made of camel's hair, and that this was objectionable because of its tendency to pack and felt together when in use to such an extent as to hinder the free flow of the oil, and also because of its want of durability. The use of long animal hair, specifically horse hair, obviated this difficulty to such an extent as materially to reduce the percentage of oil wasted, as well as the cost of the mat in proportion to the product. Defendants accomplished like results with mats woven from human hair.

The Circuit Court of Appeals, while finding that the change from camel's hair to horse-hair mats was sufficient to constitute invention in the art, if this use of horse-hair mats was first disclosed by Werk, nevertheless found, from an examination of standard works, that the patentee's use was but a revival of an old and well-recognized use of such mats in the art of oil extraction. Reference was made to the British Encyclopedia, 9th ed., 1884, the Standard Dictionary of 1894, and a multitude of other publications long antedating the application for the patent.

It is not questioned that these references abundantly showed that the use of hair cloth, and especially horse-hair cloth, in the making of oil-press mats or cloths, was well known in the art long before the patents in suit.

Nor is it questioned—indeed, we deem it clear, beyond

question—that the court was justified in taking judicial notice of facts that appeared so abundantly from standard works accessible in every considerable library. *Brown* v. *Piper*, 91 U. S. 37, 42; *Terhune* v. *Phillips*, 99 U. S. 592.

The burden of petitioner's argument in this court, as in the application for a rehearing in the Circuit Court of Appeals, is that there was nothing in these publications to show that the horse-hair cloth so familiar in the art embodied the "structural characteristics" of the oil-press mats of the patents in suit, referring to the peculiar mode of weaving described in the claims. But at the hearing it was clearly proved, and was conceded to be beyond controversy, that the patents involved no claim of an improvement in the art of weaving, but only the application of that art and a combination of threads of a certain type and character in order to produce a particular result. And this, in our opinion, goes no further than a mere mechanical adaptation of familiar materials and methods, not rising to the dignity of invention. *Atlantic Works* v. *Brady*, 107 U. S. 192, 200; *Pennsylvania R. R. Co.* v. *Locomotive Truck Co.*, 110 U. S. 490, 494; *Hollister* v. *Benedict Mfg. Co.*, 113 U. S. 59, 71, 73; *Aron* v. *Manhattan Ry. Co.*, 132 U. S. 84, 90; *McClain* v. *Ortmayer*, 141 U. S. 419, 426, 429; *Duer* v. *Corbin Cabinet Lock Co.*, 149 U. S. 216, 222; *Wright* v. *Yuengling*, 155 U. S. 47, 54; *Olin* v. *Timken*, 155 U. S. 141, 155; *Market Street Cable Ry. Co.* v. *Rowley*, 155 U. S. 621, 629.

Decree affirmed.